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DOWNTOWN BOSTON

Market Studies for Urban Renewal

Prepared for

BOSTON REDEVELOPMENT AUTHORITY

May 1963

By

ROBERT GLADSTONE
Economic Consultant
Washington, D. C.

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FOREWORD

This report summarizes our economic and market studies of the Boston Downtown. Prepared for use in connection with the Downtown GNRP and the Central Business District Project, the work was undertaken for the Boston Redevelopment Authority by contract dated September 5, 1962.

The specific assignment was to identify and dimension the major potentials for the Boston Downtown Area. These potentials -- expressed in terms of supportable types of development and measured in square footage, rooms or units -- were analyzed to 1975, the period during which GNRP project operations would be carried out. The projection period covers 13 years from the present date. Limitations in data availability frequently required the use of 1960 or earlier years as the base for projection -- lengthening the projection span somewhat. Key findings of the analysis are set forth in the summary immediately following and reported in greater detail in the text of the report.

The overall finding of this study is that Downtown Boston has outstanding potential for new development in a variety of specific activities. Downtown "rebirth" in Boston has lagged many other metropolitan areas. Factors which have in the past blocked new development in the downtown have by-and-large been eliminated and major opportunities are now available. Indications of the market potential for downtown redevelopment are already in hand based on recent building activity in the area. The downtown faces immediate and sizable additional opportunities for extensive new space up to 1975 in retail sales and service units, office space, apartments, and transient accommodations. Background factors supporting these findings are presented in the report which follows.

The methods used in this study included analysis of basic factors influencing the scale of future area development -- population, employment, income, transportation and physical development patterns in terms of past trends and future outlook. Factors bearing on types of development with specific downtown potential were intensively examined. Past trends, recent developments, basic demand and supply factors, recent rates of absorption, main forces influencing future markets, the particular role of the downtown in the metropolitan area were analyzed and market opportunities -- first on an areawide level, then in the downtown -- were projected.

Because of the nearly one and one-half decade time span involved in this projection; the as yet undetermined final development plan; and the critical decisions still to be made on various "support" factors -- such as transit, highways and parking -- all influencing the ultimate success of downtown renewal operations, the potential for new downtown development has been projected in terms of indicated ranges set as closely as possible in the light of known market factors operating during the coming years. Estimated figures for market potential are also intended as guides in

the design of the GNRP plan. These design figures will be specifically tested in the various stages of project planning for the downtown, first in terms of a final plan, then in terms of actual marketing experience. This sequence will permit step-by-step tests of the projected figures on the basis of which they can be accordingly retained or modified.

During the course of extensive field work necessary for this study, many persons and agencies in local, State and Federal governments as well as individuals in private organizations generously furnished valuable information and data. The list is too long to set forth at this point. However, specific references are included in the text where applicable. Despite generous assistance from others, full responsibility for interpretation ad application of all materials included in the report is assumed by this firm.

Robert Gladstone
Washington, D.C.
May, 1963

SUMMARY OF PRINCIPAL FINDINGS

Four key types of space use are expected to provide major opportunities for Downtown Boston redevelopment during the coming 15 years of GNRP operations. These include retail sales and service units; offices; apartments; and transient accommodations. Principal findings on each are set forth below.

A. Commercial Space -- Retail Sales and Service Facilities

1. Downtown retailing stands at a critical point in its history. Although faced with tremendous potential in terms of new capacity in the downtown vicinity and metropolitan area to support sales gains, inaction on needed improvement programs could produce static or declining sales. Three basic alternatives are available for future sales trends.

   a. Continued Decline -- extension of recent downtrends in sales totals. Outlook would be for another drop from the present $400-plus million to a 1975 level of about $335 million. This figure would be the result of little or no action on major public improvements and private expansion in and near the retail core; minimum effectiveness in present renewal operations; no transit upgrading; minimum street, highway and off-street parking improvements.

   b. Major Gains -- maintenance of present downtown sales shares in metropolitan totals. Roughly paralleling future growth in metropolitan sales (except in foodstores), outlook would be for a $550 million downtown sales total by 1975 -- approximately $150 million above present levels. Difficult to achieve, these figures would call for reversal of past trends in declining downtown "shares" requiring major efforts and across-the-boards success in all key programs.

   c. Moderate Expansion -- reversal of recent sales drops and "slowing" of declines in downtown shares of metropolitan sales. Reasonable projections indicate definite opportunity for at least $465 million downtown sales levels by 1975 --

about $65 million higher than present totals. Program requirements, although calling for vigorous action, are realistic and attainable. Overhaul and retail expansion at the core; growth in daytime worker markets; new close-in apartments; improved visitor attractions; transit upgrading and similar efforts by private and public agencies would be needed.

2. Potential sales gains under the third alternative -- moderately expanding trends -- would be able to support approximately 1,000,000 gross square feet in new downtown space for retail sales and service units by 1975.

   a. A balanced complement of commercial activities should be provided within the total new area indicated. Among the types of establishments included should be general merchandise, apparel, furniture and home furnishings outlets; drugs; hardware and specialty shops; eating and drinking places; and personal and repair service units.

   b. In achieving higher figures for the downtown, increased sales in existing units can also be expected. The outlook would be for a minimum five percent gain in existing space -- approximately $20 million in total. Gains in existing units would be based on increased patronage brought downtown by the "lure" of projected new merchandising facilities; new and expanded markets available nearby and in the metropolitan area; overall improvements in the downtown; and upgrading in the existing facilities.

   c. Although the projections have been developed for the Downtown GNRP, the proposed commercial space increases would be best concentrated within the Central Business District Project.

      1) The additional space could be taken up by expansion of already existing units, or by addition of new units preferably near the present downtown complex to facilitate comparison shopping and concentrate pedestrian traffic. This would be especially important in the case of shoppers goods outlets. In other categories -- convenience, miscellaneous retail, service and entertainment groups -- multiple units in several locations are indicated. Potentially suitable locations for eating and entertainment facilities would be an extension of the existing nucleus in the Stuart-Kneeland area.

2) The projected space for new commercial units covers regionally-oriented activities only. Smaller commercial groupings serving specialized sub-markets in apartment, office and similar complexes would also be needed in addition to the space projected above.

3. Moderately expanding downtown sales levels, totaling some $465 million by 1975, would represent a decreasing share of overall metropolitan sales -- in line with recent trends for rapid, outlying growth relative to the downtown. A reversal of past absolute declines in downtown sales is anticipated however. The reversal would be accomplished by slowing down the rate of decline in metropolitan sales "shares" realized in the downtown.

a. In key general merchandise lines, past declines in downtown's position have been steady. Downtown accounted for the following "shares" of metropolitan sales in general merchandise for years shown:

67 percent in 1948
59 percent in 1954
48 percent in 1958

b. Within the general merchandise group, department store units -- essential magnets in attracting regional shoppers to the downtown -- showed declines as follows:

77 percent in 1948
70 percent in 1954
60 percent in 1958

c. For the general merchandise and department store units, reasonable projections show that 1975 sales would account for 40 and 50 percent, respectively, of metropolitan sales. These figures, although representing further declines relative to regional totals, "flatten" the rate of decline during the coming period compared to the decade recently passed -- based on the market impact of projected downtown expansion and improvements.

d. Even with continued relative declines, absolute gains in dollar volumes can be forecast on the basis of these percentages. The overall outlook in sales growth is for a $65-plus million increase. This would represent more than a 15 percent gain over present sales totals in the downtown area for similar types of units. Achievement of these targets would return downtown sales levels to those previously reached during the late Forties and early Fifties on a constant dollar basis and higher in terms of current dollars.

4. Basic to support of indicated increases in downtown sales are the expected population and income gains in the Boston Area.

   a. Population gains in the Greater Boston Region for the 15-year period between 1960 and 1975 are expected to reach 20 percent. Metropolitan rates should be only slightly lower than the region.

   b. Personal income for area families can be expected to expand up to 80 percent for the same 15-year period. Although part of this gain might be lost to inflation, major portions would be represented by "real" increases. The projected income gains are conservative in contrast with the pattern established during recent years when average rates of expansion were nine percent per year as against the five expected in the years ahead.

   c. The combined effect of population and personal income gains should result in a more than 100-percent increase in purchasing power for the area. A major portion of these gains could be translated into increased retail and service sales volumes at outlets in the downtown and elsewhere in the metropolitan area.

5. Even apart from area purchasing power gains and downtown participation in them, improved accessibility and growing sales to residents of Boston's multi-state trading area; increased sales to business, convention, tourists and other visitors; and substantially expanded "captive" markets -- office workers and residents of new, close-in apartments -- offer major potential for increased downtown sales.

B. Office Space

1. The potential for new office space in the downtown area up to 1975 is outstanding. Although Downtown Boston has lagged other parts of the metropolitan area as well as other U.S. metropolitan centers in new office expansion, strong forces to overcome past development blocks -- urban renewal, new highways, local realty tax controls -- are now in hand. The Boston Downtown provides suitable markets to support and in fact, requires new office areas in order to fulfill new roles in the metropolitan development pattern in the coming years.

2. Conservatively projected figures for downtown employment gains indicate support for an additional 5.5 million gross square feet of privately-owned office space to 1975. Actual new construction by 1975 can be expected to reach higher totals based on replacement and upgrading demand and expansion requirements for present downtown employees.

Basic to the new space projection are calculated employment gains in key office-using categories -- finance, insurance and real estate; services (exclusive of Government); as well as miscellaneous employment. Indexes of space use intensity in line with current Boston standards and recent patterns in similar cities for new office areas provide the basis for converting projected employment gains to office needs.

a. Indicated office needs based on downtown employment gains and metropolitan population gains are in general accord -- each in the 5.0-5.5 million square foot range.

b. The projected figures anticipate an expansion of the existing inventory totaling approximately 25 percent -- reasonable in relation to actual rates of expansion for nearby metropolitan areas recently including New York and Hartford. Although unique, New York during the postwar period doubled its total inventory of space as a result of new construction.

c. On an annual basis the projected rate of gain would be approximately 425,000 square feet. This is substantially less than the actual absorption rate in recent years.

d. The projected square footage corresponds to previous demand estimates by the Boston City Planning Board in their 1960 analysis and other studies prepared in connection with BRA projects. The Planning Board figure -- projected to 1980 -- for a downtown which extended into the Copley Square-Back Bay area totaled 8,000,000 square feet. On an annual basis, expansion under this projection would be 400,000 square feet -- the same rate as projected in the analysis prepared for the Waterfront Project offices.

3. In addition to the 750,000 gross square feet recently completed in downtown and close-in sections, additional office areas are already firmly projected, in planning stages, are committed in terms of public policy or are already under construction.

a. Committed space totals approximately 4.3 million square feet. Located in a number of projects, the breakdown is as follows:

Building Projects (Privately-Financed) Space Only	Gross Square Footage of Office Area (000,000)
Government Center	1.7
Waterfront	0.3
Prudential Center	1.0
British Properties	0.8
Miscellaneous	0.5
Total	4.3

b. Available square footage remaining for downtown development -- subtracting committed new space from the supportable total -- is approximately 1.25 million square feet. Based on the overall markets for downtown space, these figures are net of replacement area for existing facilities. Consequently, even though the projected figures are substantial, they should not create competitive conditions.

4. Location for the projected 1.25 million square feet of new office area in the downtown would be dictated by final design considerations and renewal policies. Three locations appear desirable at present. One is in the financial district; another in the retail core, perhaps part of a new retail-office complex. A third would be along Boylston Street between Tremont and Charles, perhaps developed in conjunction with elevator apartment buildings. If each of the three locations were developed with buildings equal in size, approximately 400,000 square feet per site would be indicated. Although sizable, each would be substantially smaller than the projected British Properties development and less than one-half the size of the Prudential Center main office building now under construction.

5. Three basic factors indicate strong future demand for new downtown office space in Boston.

a. Employment Gains. The outlook is for substantial gain in office-using employment categories within the downtown area. Projection data for downtown employment were developed in an earlier study prepared by the Boston City Planning Board. The downtown projections, established as part of an area-wide analysis of potential employment patterns, were reviewed and accepted for this analysis.

b. Metropolitan Market Patterns. Boston has long been a major center for U.S. office construction with new construction in recent years valued half as great as Washington, D.C. and one-eighth that for New York. Indications are that the average rate of new office construction for the area totals approximately 2.0 million square feet per year. The downtown has not fully participated in area trends and much of the new office construction has been in outlying locations. Had suitable sites been available and other impediments to new downtown development eliminated, some of this activity might have occurred downtown. Indeed, without a vigorous program of new downtown office construction, a part of the present downtown market seeking new accommodations might be lost by suburbanization. The projected downtown office space would attempt to "claim" only some 20 percent of a 2.0 million square foot per year area-wide market -- in line with the downtown share of area office employment and reasonable in consideration of downtown advantages.

c. Downtown Market Trends. Three factors point up the vitality of the Boston Downtown for office-using activities. These are total area presently occupied, high utilization of the existing, quality inventory and rapid absorption of new office space in the downtown.

1) Present estimates show that there are 20,000,000-22,000,000 gross square feet in privately-owned offices in the downtown. Measured in terms of gross rather than net area and including various types of space in all types of buildings in the entire downtown area, this inventory is widely "mixed" in terms of quality levels, age, occupancy patterns and vacancy rates. Estimates show that better quality space is maintaining high rates of occupancy. Of the approximately five to six million square feet of better space, recent surveys report only five percent vacant area at present. Virtually 100 percent of the newer, top-quality space is occupied. Typical vacancy rates for the lower-quality walk-up space, generally old and in relatively poor condition, run substantially higher -- perhaps in the 12-plus percent range. This pattern is typical for areas throughout the United States and Boston is no exception.

2) Although a limited amount of new space has been actually completed in downtown and close-in areas recently, it has been readily absorbed into the local market. In the five

years between 1957 and 1962, a total of about 750,000 square feet in seven key buildings have been added to the inventory. These are as follows:

Office Building	Gross Square Footage
Travelers Building	225,000
Blue Cross-Blue Shield Building	125,000
Liberty Mutual Insurance	225,000
IBM Building	70,000
McGraw-Hill Building	38,000
Remington Rand Building	36,000
White Fund	31,000
Total	750,000

3) In addition to space actually completed, a tremendous additional area has been substantially upgraded by renovation, is presently under construction or is firmly projected. Analysis of leasing patterns and commitments for space in the buildings expected to offer occupancy soon as well as those actually completed, indicates an annual absorption rate for quality space in the downtown in the 500,000-600,000 square feet range in the recent past.

C. Apartment Units

1. The Metropolitan Boston market provides strong support for new housing units and rental accommodations throughout the area as well as in the downtown. The record of past housing market activities in Boston points up this conclusion.

   a. During the 1950-60 decade, the average increase in the number of housing units for the metropolitan area totaled 14,670 per annum. The decade rate for increases in occupied units was slightly lower -- as is to be expected. Replacement factors and increasing vacancy rates in obsolescent units supported higher levels of building activity than required for population growth alone. Building was relatively steady throughout the decade in contrast to many other metropolitan areas. However, highs in the early 1950's were not reached again throughout the decade. Activity in the early years of this decade -- 1960, 1961 and 1962 -- is once again climbing and the building peak of last decade may soon be reached.

b. The number of renter-occupied units increased at the rate of approximately 1,000 per year between 1950 and 1960. The decade share of new units which entered the rental inventory was approximately eight percent. This relatively low ratio was typical for metropolitan areas throughout the U.S. during the past decade. The effect of this 10-year emphasis on ownership units in Boston was to reduce the renter share of the total inventory from 56 percent in 1960 to 48 percent in 1960. The share of rental units in total inventory in Boston was higher than the nation in both 1950 and 1960.

c. In recent years, apartment units have been accounting for an increasingly high proportion of total starts. This same pattern has been typical throughout the United States. The 1960 dwelling unit permits show apartments accounting for approximately 1,700 units, or 18 percent of all starts. Even though this figure was up from the average record established during the Fifties, the 1961 total was even higher with 4,276 units in the apartment category -- 38 percent of total starts. This same upward trend continued in 1962 with nearly 50 percent of starts in apartments.

2. The future outlook for the overall housing as well as apartment markets in the Boston area is excellent.

a. The overall supply gain is projected at 15,000 units per year. This is approximately the same as the annual rate during recent years in line with area population projections. Apartments however, are projected at a somewhat higher rate in relation to annual increments consistent with the recent pattern in the Boston area as well as trends throughout the nation.

b. Specifically, a 13-percent share of all new housing units is projected in the apartment category. This would represent a total of approximately 2,000 units per year -- small compared to rental "hot spots" in the nation such as Washington which last year absorbed a total of approximately 24,000 new apartments or 65 percent of new starts during 1962.

3. Downtown opportunities in the apartment field are unique and substantial.

a. Support for downtown demand would be primarily based on the downtown work force. More than 200,000, nearly 21 percent of the metropolitan work force are located in Downtown Boston marking it one of the more highly centralized cities in the U.S. today. Even apart from future expansion, walk-to-work opportunities for white-collar workers

and junior executives, single persons, younger and older couples without children, as well as retirees establish a major market potential at the present time.

b. Recent new apartment offerings in downtown and close-in sections, although relatively small in relation to potential demand and oriented to upper income groups, were rapidly leased-up. Two examples are the 330 Beacon Street project and Charles River Park. The Beacon Street building is a luxury apartment grouping with duplexes and other special features, overlooking the Charles River in a Back Bay location. Containing a total of 72 units, rents for standard units in this building range up to $750 per month. The Charles River Park apartments with a total of approximately 500 units oriented to upper-middle also rented well. We understand that approximately three-fourths of all units were leased prior to completion of model apartments. The outstanding market response to these two offerings based in part on the past vacuum in new downtown apartments due to scarcity of sites, difficulty of establishing suitable residential environs and lender reluctance, points up market potentials.

c. The Central Boston area could readily provide suitable locations for one-fifth of all apartments projected for the metropolitan area -- or 400 per year. This would represent a conservative total of 6,000 units during the next 15 years. This figure, of course, would be for all types of units; in all locations throughout the downtown area; and at all rent levels from middle income to semi-luxury. The proportion of the area-wide market served in Central Boston could be substantially increased if, as a matter of policy, programs to broaden the market base of new offerings in the middle income ranges were applied. A reasonable high range estimate of the 15-year market potential would be 9,000 units. Sales offerings would serve to expand the downtown potential even further.

d. Approximately 5,000 units have already been programmed in the central area. These include 2,200 in the Waterfront; 2,400 in West End; and 200 in the White Fund development. The minimum residual number of apartments which would be supportable in downtown locations totals 1,000 units -- based on unique locations available and specific demand factors.

e. Within the downtown area, desirable locations for rental units in the upper-middle and upper-income categories would be along Boylston Street and Tremont facing the Garden. Additional, less expensive

units could be located in the South Cove area. Bay Village with strong rehabilitation efforts already underway presents a particularly favorable opportunity. These should be dominantly middle-income and related to the needs of the hospital market generated at the New England Medical Center and in the Chinese community. Additional, scattered locations would also be possible depending on final design for the downtown and CBD project areas.

D. Transient Accommodations

1. The potential for new transient accommodations in Downtown Boston is excellent.

   a. Metropolitan Boston is a key regional and national destination for business and pleasure travelers in a broad variety of categories -- industry and commerce; finance; insurance and Government; religious and educational; historic tours; health and medical; and sports and entertainment. Conventions alone are bringing more than 170,000 visitors per year to Boston at the present time.

   b. Downtown Boston is the central point for metropolitan travel activities with its extensive concentration of public, institutional, office, retail and entertainment facilities.

   c. The already completed segments of the freeway system tying Downtown Boston to interregional routes, in combination with the airport as well as bus and rail service, focus long-distance travel in the central area of Boston.

2. The present supply of downtown and close-in quality accommodations is already tight in relation to current demand.

   a. The total inventory in the central area at the present time is less than 7,000 units. Only half of this amount can be considered in the "A" category of high-quality facilities.

   b. Occupancies in the existing supply of quality transient rooms -- by-and-large old and partially obsolete -- are currently running at the 75-percent level. On this basis, the average nightly demand overall is more than 5,200 units. Occupancy in newer close-in motor hotel facilities is running significantly higher -- an average of 85 percent.

c. Downtown demand is actually greater than indicated in the preceding figures. Due to gaps in the supply of convenient, modern, motor hotel facilities in the downtown, motels in somewhat more outlying locations have siphoned away part of the demand which might otherwise have sought downtown rooms. New downtown facilities would recover at least a portion of this lost demand.

3. Further substantial gains in demand are definitely indicated for the downtown area.

   a. Future growth in sectors of the economy generating heavy traveler demand can definitely be expected in the downtown area. Specifically, the projected increase in office space can be expected to expand demand for new transient accommodations in the downtown. In addition, the new War Memorial Auditorium presently under construction as part of the Prudential Center complex in the Back Bay area has already demonstrated its capacity to draw major new convention commitments to the area. The Hotel America, immediately adjacent to the auditorium, is not adequate to meet this new convention demand. Room commitments necessary to carry conventions compatible with full use of the 6,000-seat auditorium would call for an additional 1,000 quality rooms in downtown locations near the auditorium.

   b. Even apart from specific local factors, pressure at regional and national levels which stimulated the stupendous postwar expansion in business and pleasure travel will continue active during the coming period. Specifically, these include increasing income, increasing leisure, greater mobility as well as increased frequency of conventions and business meetings.

   c. Completion of the interstate freeway system will not only further knit the downtown area into the interregional freeway framework, but will also further obsolesce the locations of many existing motels.

4. Overall downtown demand for new transient accommodations to the year 1975 is conservatively estimated at 3,500-3,750 units. This would approximately double the present number of quality transient accommodations in the downtown. Already programmed are 3,000 units in the following specific projects:

Projects	Number of Units
Prudential Center Hotel America	1,000
Government Center Motor Inn	400
West End Motor Inn	300
Cambridge Charterhouse	400
Waterfront Project	400
Miscellaneous	500
Total	3,000

The net available demand for the downtown area on a basis of the preceding data would be for 500-750 new transient units.

5. The downtown facilities can probably best be accommodated in one or two new motor hotels or central business district sites. Suggested as possibilities are tower units developed in conjunction with a retail-office complex near Summer and Washington; the area along Boylston near Charles and Tremont; and the State Capitol area at the upper end of Tremont.

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DOWNTOWN BOSTON

Market Studies for Urban Renewal

Section I. The Setting

DOWNTOWN BOSTON

Market Studies for Urban Renewal

Section I. The Setting

Downtowns in the U.S. postwar period have had a remarkable history. Early after the end of World War II -- in the late Forties and early Fifties -- the downtown was largely being written-off. Strong trends of decentralization affecting Boston as well as virtually every other city in the nation were underway.

> This was the period when great suburban gains were beginning. Residential population left close-in central city areas in preference for suburban locations. Newly arriving families rejected older neighborhoods, some of which were rapidly deteriorating, in favor of new, easily financed tract housing in outlying areas. Highways were extended, new sewers put in place and schools erected to house the burgeoning population of youngsters.

Fast growth in these outlying areas created new markets which quickly attracted needed shopping facilities. First came convenience shops -- food, variety, drugs, hardware and other outlets meeting day-to-day needs -- together with selected service units. Following these were larger stores providing shoppers goods -- junior department and full department stores, apparel outlets, furniture, home furnishings and specialty shops -- grouped into new large-scale regional shopping facilities.

Office buildings, factories and other job centers came too. Local service needs for doctors, real estate firms, branch banks and savings and loan facilities provided the main office markets initially. These were followed by other professional groups and types of organizations which had been associated with central area locations. Large-scale relocations to the acreage tracts and campus sites available at the city's periphery -- well-serviced, highly accessible by new highway connections, yet relatively uncongested by traffic -- accelerated new patterns of employment suburbanization. Although shifts did not take place across-the-boards, they were selective in the types of warehouse, administrative office and factory operation most sensitive to operational difficulties at the core and most able to take advantage of new suburban locations.

> Causes of the trends, rather than the trends themselves, are of more direct concern in this analysis. Suburban gains have been and will continue to be an inevitable feature of overall area growth. The major function of suburban areas, especially at the leading edge of urbanizing territory, is to absorb new growth. In so doing it continues to extend the outer limits of intensive development. This process of normal growth and extension however, has occurred not only on the basis of advantages for certain types of operations in outlying areas but in many instances has been accelerated by disadvantages -- or "push" factors -- in downtown areas. It is these disadvantages, not suburbanization, which have been at the root of downtown declines. The programs aimed at minimizing or eliminating downtown disadvantages and at the same time permit freer operation of basic downtown strengths, are discussed in further detail below.

Downtown Problems

With strong suburban trends in cities throughout the nation, evidence of mounting downtown problems has become increasingly obvious. Particularly significant have been

the retail decline in percentage of areawide sales as well as actual declines in dollar volume, employment declines, growing obsolescence of buildings and decay of environment, and shrinkage in property values for investors and tax returns to the city.

Fundamental in these problems have been the following factors:

1. High Property Costs. Many parcels in the downtown area are held at high values in relation to current markets for the use of land -- especially in comparison to increasingly competitive, unimproved suburban sites. In some cases these values are based on assumed potentials for high-intensity uses. In other cases, they are based on existing improvements which generate relatively high net returns and which are in effect, "transferred" to the ground when demolition and new construction is involved. Both of these factors push downtown ground costs to high levels.

2. Obsolescence. Existing downtown buildings, generally among the oldest in the city, are frequently obsolescent and, in some cases, unusable for modern purposes. The cost of adapting these structures to most contemporary uses is heavy and often uneconomic.

3. Parcel Size. Subdivided early in the city's history, typical downtown lots are small in relation to current needs. Contemporary large-scale developments requiring on-site parking and sizable floor areas, call for substantial platting and make parcel assembly necessary in downtown areas.

4. Fragmentation of Ownership. Frequently titles to property in critical locations are held in trust by estates, in multiple or absentee ownerships. Disposition decisions are difficult to secure in such circumstances.

5. Difficulty in Assembly. High cost, fragmented ownership and small parcels combine to make downtown land assembly expensive and difficult. This is in contrast to the comparative ease in finding large tracts of ground at outlying locations for new developments.

6. Traffic and Circulation. Limited downtown entry points, increasing vehicular traffic due to increasing population, and expanded auto ownership together with loss of transit patronage, have created major problems of congestion in many downtown areas.

7. Parking Shortage. Increased traffic loads and a decreasing number of curb spaces have resulted in new problems of automobile storage at downtown terminal locations. Competition with suburban facilities providing ample, convenient and low-cost parking add to downtown difficulties.

Forces of Change. In more recent years -- especially in the middle to late Fifties and early Sixties -- downtown areas began to come into their own once again. Investor confidence in the future of the downtown was re-established despite continuation of strong suburban trends. New programs began in this period which provided the basis for a downtown "return". The scale of downtown re-building has since reached gigantic proportions in specific cities. Some of the most substantial building booms in the history of the nation have been taking place in central areas of key cities throughout the nation.

In New York City for example -- which only a decade ago was faced with major evacuation of principal corporate headquarters from the center city areas -- the greatest commercial construction program in its history has taken place. During the post war period, the total Manhattan office inventory has approximately doubled. A total of nearly 70,000,000 square feet have been constructed in Downtown Manhattan already, bringing the inventory to a 1962 total of approximately 135,000,000 square feet. Another 15,000,000 square feet are under construction in 30 buildings and 18 more are projected. Despite these vast additions, space completed in the post-war is more than 99 percent occupied, based on latest surveys. More recently, new hotel and apartment building programs have been picking up momentum.

In Dallas, where the pace of new downtown construction has been exceeded only by New York, a total of approximately 7,000,000 square feet in new office space have been added during the Fifties. An additional 4,000,000-plus square feet are either under construction or firmly committed. Extensive square footage in retail space, hotel and motel accommodations and, more recently in apartments, has also been added in the Dallas Central Business District.

In Hartford, with the central area office inventory at 5,000,000 square feet, a total of 1,000,000 new square feet was successfully added in the Constitution Plaza project alone, apart from additional square footage in other parts of the central business district. Downtown Atlanta has added millions of square feet of office space in recent years, having "broken loose" only recently from its history of lethargy and downtown inactivity. Downtown hotels, apartments and retail square footage have also been added. The story is similar in many other cities in other parts of the nation.

Downtown Strengths.

The resurgence of development and investor interest in downtown areas is solidly based on substantial and permanent strengths available and, in some instances, uniquely available in the downtown as against other parts of the metropolitan region. The downtown is the place where a broad variety of special functions can best be carried on in the metropolitan area. This is particularly true for facilities requiring central locations, easy access to the entire metropolitan area, or with close ties to other specialized downtown activities. Included for example, are a wide variety of office

functions, professional and business services, governmental activities, cultural and semi-public operations, selected transportation and communications activities.

The downtown is frequently the only place where certain types of functions can be carried on with any degree of effectiveness. To develop a major department store for example, in depth and with complete variety of merchandise lines,requires a mass market fed by heavy vehicular and transit traffic; major pedestrian concentrations drawn from nearby "captive" markets in office buildings; and trade based on visitors to the area from transient traffic at hotels and conventions. Such concentrations are usually available only in the downtown area. Other types of units rely on downtown locations for a variety of special services and facilities essential to their operation. The concentration of activity in the downtown provides needed support for such special services and at the same time attracts additional users seeking the advantages of their availability.

> Taken as a whole the downtown is a major "industry" in itself. Its activities are a key source of strength in the local economy. The interaction among components of the downtown economy weld it into an economic whole which directly affects the smooth functioning of the metropolitan area. The strengthening of the downtown economy consequently, is essential to the economic health and prosperity of the entire area. It is not only a matter of protecting the immense investment which has been made in the physical facilities of the downtown up to the present time, it is also a matter of taking necessary steps to permit this important "industry" to develop at its optimum rate in the future.

Basic to the strength of downtown areas -- as well as Boston's Downtown in particular -- are a number of key factors. These include the following:

1. Centrality and Accessibility. The downtown is at a central place in the heart of a sizable urban region. Supporting areawide markets are distributed more uniformly with respect to the downtown than for other locations, making it the single most accessible point to all portions of the developing suburbs. The dispersal of new suburban growth in various directions has made it difficult to develop sub-centers which can compete effectively across-the-boards with the downtown in the full range of its activities.

2. Momentum. An additional asset of the downtown is the momentum of past and present activity. The downtown area at the present time contains an estimated 60,000,000-plus square feet of space in a wide variety of occupancies which employ more than 200,000 persons. These operations create a level of activity which is self-generating and to an extent self-sustaining. Each unit in the downtown area generates traffic and patronage. The presence of this traffic in the downtown area provides opportunities for potential sales or contacts in other downtown units. The overall effect of this downtown concentration is greater than the sum of the individual parts. The opportunity for example, for multi-purpose trips to the downtown area draws trade from isolated locations and from smaller commercial sub-centers.

3. Urban Renewal. Perhaps the greatest single force making for downtown change in recent years has been the influence of urban renewal. Under this program for the first time, area-wide use of eminent domain powers was made available to overcome difficulty in assembling suitably-sized tracts of land for modern development and to eliminate blighting conditions in surrounding areas. In addition, grant funds were appropriated to support "write-downs" on the spread between acquisiton costs and re-use values to private investors. These features provided a basis to reach available markets for downtown investment by eliminating blocks in the flow of capital into the downtown area.

4. Space Inventory. The availability of a substantial supply of space for a variety of purposes is a downtown advantage in meeting the needs of young and small firms. Generally less costly than newer space and often available on a flexible basis in terms of area, tenure and purpose, the downtown can serve as an "incubator" area for newly established firms which start in such space then, as they grow and prosper, may move to newer or "customized" quarters.

5. Transportation improvements. Urban expressways, funded by 90-10 assistance from the Federal Government under the interstate highway program, provided new means of high-speed, high-capacity access to the heart of the central area for the first time in recent years. To the extent that the construction phases of this program are completed, problems of congestion on conventional streets are reduced. Although final benefits from the new freeways are yet to be fully felt, those elements already in place have helped downtown reconstruction efforts.

More recently, the continued need for mass transportation service as a means of rapidly and conveniently moving major traffic loads in and out of downtown areas has been recognized. A number of cities have been studying transportation systems which include rapid transit. Some are already moving ahead or are committed to do so. New Federal programs are beginning to shape up providing a more balanced program of assistance for mass transit operations in relation to previous efforts in the highway area.

Boston Outlook

The response of Boston and its downtown to the forces and trends outlined above has "lagged" many other metropolitan areas. The lag is due primarily to phasing of the key elements which make for downtown revival, including urban renewal, traffic and circulation improvements and -- specifically for Boston -- local realty tax.

Major elements for successful downtown rebuilding are now in place in Boston. The pattern seen in downtowns elsewhere in the nation can now occur here. A strong market basis for these developments is in hand. Recent trends point up the specific potential for future downtown improvements. The beginning office building programs, apartment construction and transient accommodations indicate the successful outlook for new development -- appropriately designed, well-located, suitably "scaled" and managed. Regional gains in population and employment; obsolescence in much of the

downtown area; the availability of investment capital; the underlying strength of the downtown in relation to the region -- all suggest major opportunities for a program of dynamic expansion and rebuilding in the Boston Downtown.

DOWNTOWN BOSTON

Market Studies for Urban Renewal

Section II. Specific Outlook

DOWNTOWN BOSTON

Market Studies for Urban Renewal

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In this section, specific projections for key types of space use in the downtown area during the next one and one-half decades are set forth. These projections establish the dimension of opportunity for downtown redevelopment in the private sector. The analysis covers the period from the beginning of this decade to the middle of the Seventies. Preliminary indications as to appropriate staging in relation to market growth are also outlined.

> Four major categories of private development offer substantial potential for the new downtown program. These are commercial space for retail sales and service units; office space; residential uses; and transient accommodations. Each of these is discussed in turn in subsequent sections. The overall market available in the metropolitan area as well as in central parts of the region is delineated and the potential "share" which might be effectively realized in the downtown area -- and for which the downtown plan should be designed -- is calculated.

Although public, semi-public and institutional uses play a vital role in downtown development, they are analyzed at the plan and policy level rather than in economic or market terms which are the specific orientation of this analysis. Although public and institutional uses are not subject to analysis, they enter into this study in two specific ways. First, some space in privately-owned and developed

facilities -- especially offices -- is used by each of these "non-private" activities, expanding the market for the space projected in this report. In addition, public and institutional facilities including governmental office buildings housing Federal, State and local workers; libraries; museums, schools; churches and parks; as well as such installations as freeways; subways; parks and open spaces provide essential support for the development of the projected private facilities. This point is discussed in further detail in subsequent sections.

Other types of private uses apart from those mentioned above are active in the downtown today. Of particular interest in Boston are manufacturing; processing and fabrication; wholesaling; warehousing; and distribution facilities. Sections of the downtown area have long served to provide necessary space for operations in these categories. Although we expect that this will continue to be the case, at the present time there is no discreet and discernable market for new facilities of this type which can and should be planned within the downtown. Increasing specialization in the downtown as well as in industry, indicates that new industrial development should take place not in the core, but at its fringes or elsewhere in the region.

> Downtown loft space, presently extensively used by soft goods manufacturers in the apparel and leather industries and for a broad variety of wholesale and warehousing functions, serves a mutually valuable purpose for these industries and for the downtown area. Establishments in these industries are frequently marginal in character. They rely, at least in part, on the availability of inexpensive space to make the economics of their operations work. Although no major changes are proposed in this report, a program of area improvement including off-

street parking and provision of more adequate loading facilities together with possible industry-wide display and other supporting facilities would be useful to both the industries involved and the downtown.

In addition to the real estate economics of downtown locations for these industries, the convenient availability here of a variety of needed "inputs", figures heavily in their viability. These external economies include appropriate labor force; proximity of suppliers; availability of specialized production apparatus; repair services; and a host of other services needed for day-to-day activities in each of these businesses.

GNRP Process

The projections set forth below are designed to serve planning needs for the GNRP. Although the magnitudes in some cases are large, they cover an extensive downtown area more than 400 acres in total size and involve a time-span of 15 years -- from 1960 to 1975 -- as long as the entire postwar period up to the present time.

These projections -- developed in response to the indicated range of downtown potentials -- are intended to serve as a flexible guide in formulating the GNRP plan. Ultimately they will be adapted to a staged series of specific renewal projects. Planning for the first of these projects is already underway.

In the sequence of individual projects, these first space use projections and the GNRP plan itself will be specifically evaluated and, accordingly, be retained or modified as necessary and appropriate. The long-range projections set forth here

will be refined in individual projects in two specific ways. First, the final design "product" which will be offered to the market place will be in hand. On this basis, final determinations as to potential marketability will be possible. In the marketability studies, the attractiveness and market impact of the plan solutions for the first time will be specifically evaluated. In addition, as stage-by-stage project development moves ahead, the actual market "pulse" will be taken by a series of offerings -- each of one of which would be smaller than the total as projected here. The current "condition" of the market for various uses can be established on the basis of this information. Similarly, the design of individual projects and sites within projects would be responsive to the conditions then current.

Approach in Analysis. Three factors are basic to the analysis and results set forth in the report which follows. These are:

1. Net Additions. End results of this analysis -- supportable space use projections -- are developed in terms of the net additional area for which market support is indicated during the coming 15 years. The total space which might be available in the downtown in 1975 would be the sum of existing square footage and the net additional areas as projected below.

   Figures on net additions exclude demolition and replacement of existing space. Gross additions consequently, would be the total of net additions based on area economic gains together with appropriate new square footages to replace space demolished during the coming years. Replacement space would not necessarily be on a one-to-one basis. Inefficiently used areas, vacant and largely vacant buildings would be replaced only in terms of the "effective" area in use at the time of demolition. Consequently, total new construction activity would be more extensive than indicated by projected net additions alone.

2. Plan Support. A wide variety of public and, in some cases, private support programs would be necessary to sustain the new space use figures. Examples would be the creation and maintenance of public open areas, provision of adequate transportation -- especially in rapid transit, solution of parking, highway access and circulation difficulties, availability of Federal and local funds for adequate and fast-moving urban renewal activities, and similar types of activities. In general terms, the projections assume balanced and adequate support across-the-boards in the various back-up programs. Specific needs are discussed throughout the report which follows, especially as they relate to local real estate tax questions and rapid transit.

3. Residual Allocations. In developing supportable space projections for the downtown, the overall demand for the central area in each of the key space uses was first developed. Specific account was taken of committed and programmed space in nearby, competitive developments. The figures used here as representing the downtown potential are the difference between overall projections and the already committed and programmed areas. On this basis, additions projected for the downtown should account for a non-competitive share in the overall market foreseen in the central area.

Part A. Commercial Space -- Retail Sales and Services

New commercial potential in the downtown rests on growth in three major supporting markets. These are:

1. Trading Region. Rapid gains in purchasing power for the metropolitan area as well as the larger multi-state trading area drawn to the downtown will be creating additional sales potential. These gains would be underpinned by both population increases and higher personal incomes. Key factor is the extent of downtown participation in these regional gains.

2. Immediate Downtown Markets. The future prosperity of the "commercial" downtown is directly tied to the overall program for central area revitalization and specifically to the projected gains in downtown office workers and residential population. These two sources would substantially expand present markets in the immediate vicinity of the downtown.

3. Visitors. Tourists, convention delegates, business travelers and other visitors to the area already make sizable contributions to downtown commercial activity. Continued growth in these markets -- bolstered by additional freeway access to the downtown, new central area hotels and motels, improved downtown convention, eating and entertainment facilities -- can definitely be expected.

Specific discussion on each of these three items follows below.

Trade Area Gains

Analysis of downtown commercial potentials resulting from trade area growth was developed in two phases -- background trends and supportable new space projections based on key trends. Background analysis covered population trends; sales patterns in various store types; specific retail trends in the downtown and metropolitan area; and patterns of consumer expenditure in the Boston area.

The projection materials cover retail sales expected in major sub-markets within the region for key types of commercial units in 1975 measured against actual sales in recent years. The gains projected for 1975 are translated into supportable square footages in terms of a balanced complement of retail sales and service units. Preliminary indications as to possible staging in intermediate years up to 1975 are also set forth.

Population Trends

Area population growth is particularly critical to expansion opportunities in retail sales and services. Its changes affect the total purchasing power available for personal consumption as well as relate directly to job gains in the local area.

> An overview of recent Boston population trends show steady, even if not sharp gains in area population. Firmly established as one of the top metropolitan centers in the nation -- seventh largest based on the latest Census in 1960 -- Boston's recent population gains have been significant to new development opportunities in terms of their magnitude rather than rate of growth. In each of the past two decades, population gains have been in the 200,000-size range -- 20,000 persons added to the metropolitan area each year on the average. These gains can be expected to continue at approximately the same pace during most of the coming decade accelerating in the late Sixties and Seventies.
>
> Substantial shifts have also been taking place within the metropolitan area. Central city sections have been declining in population while the suburban sections -- with populations bolstered by out-migrating, former central city residents -- have been growing more rapidly than the region as a whole. Trends in suburban growth can be expected to continue in the future as a part of the normal central area shifts from residential to non-residential land use patterns and new population absorption in suburban locations. However, as urban renewal and other core area reconstruction programs take hold, city declines can be expected to be reversed.

Population Outlook. Forecasts for this analysis are based directly on work by the Greater Boston Economic Study Committee (GBESC). This organization, beginning in 1957 completed numerous studies of area growth prospects. The most recent of these, completed in July, 1962 fully incorporated the results of the 1960 Population Census and was the immediate basis for the work in this report. In addition, population studies prepared by the Boston City Planning Board as well as subsequent BRA analyses provided further guidelines.

The GBESC study region -- which includes all of the metropolitan area with extensions inland -- is expected to continue its past growth at about the same rate as in the 1950-60 decade until 1970. Thereafter, the pace of gain has been forecast to increase up to 1980, the "terminal date" for the GBESC forecast.

> Actually, the GBESC projections were developed in low, medium and high ranges for both 1970 and 1980. In applying these results to this analysis, the medium 1970 forecast was selected for the region and the upper end of the range for 1980. The metropolitan figures -- derived from the regional totals -- reflect a similar pattern.

Specifically, the 1960-70 range of population gain is projected at 9.7 percent -- identical with the gain shown in the 1950-60 period. In the 1970-80 period however, the rate of gain for the region has been projected to increase to approximately 15.7 percent. On this basis, present regional population can be expected to reach approximately 3.8 million by 1970 and 4.4 million by 1980.

The metropolitan area should follow similar growth patterns. The 7.4 percent gain for the 1950-60 decade, previously mentioned, should hold to 1970. The pace of growth can be expected to increase in the subsequent decade in line with the regional gains. Forecasts show the 1970-80 gain to be 12.8 percent for Metropolitan Boston.

> The decade control figures indicate that a metropolitan area population of 3,025,000 can be expected by 1975 -- the year of particular interest to this analysis. This figure would represent an increase of approximately 435,000 from the 1960 level. On a decade basis, the 1960 figure of 2.6 million for Metropolitan Boston should increase to roughly 2.8 million by 1970 -- a gain of approximately 200,000. In the following ten years, a gain of 356,000 persons can be expected by 1980 or sooner -- bringing the total to 3,130,000 persons.

Metropolitan area population trends and outlook -- reflecting the accelerating growth expected to 1975 -- are summarized in Table 1, immediately below:

Table 1. POPULATION TRENDS AND PROJECTIONS, BOSTON AREA, 1950-75

Year and Change	Number of Persons: Metropolitan Boston	Number of Persons: Greater Boston
1950	2,410,572	3,160,933
Change 1950-60	178,729	306,610
1960	2,589,301	3,467,543
Change 1960-70	184,299	334,957
1970	2,773,600	3,802,500
Change 1970-75	251,400	419,000
1975	3,025,000	4,221,500
Percentage Gains:		
Change 1950-60	7.4%	9.7%
Change 1960-70	7.1%	9.7%
Change 1970-75	9.1%	11.0%

The changing population relationship between Metropolitan Boston and Greater Boston can be seen in the following tabulation:

Year	Metropolitan Population As Percent Of Greater Boston
1950	76.2%
1960	74.6%
1970	73.0%
1975	71.7%

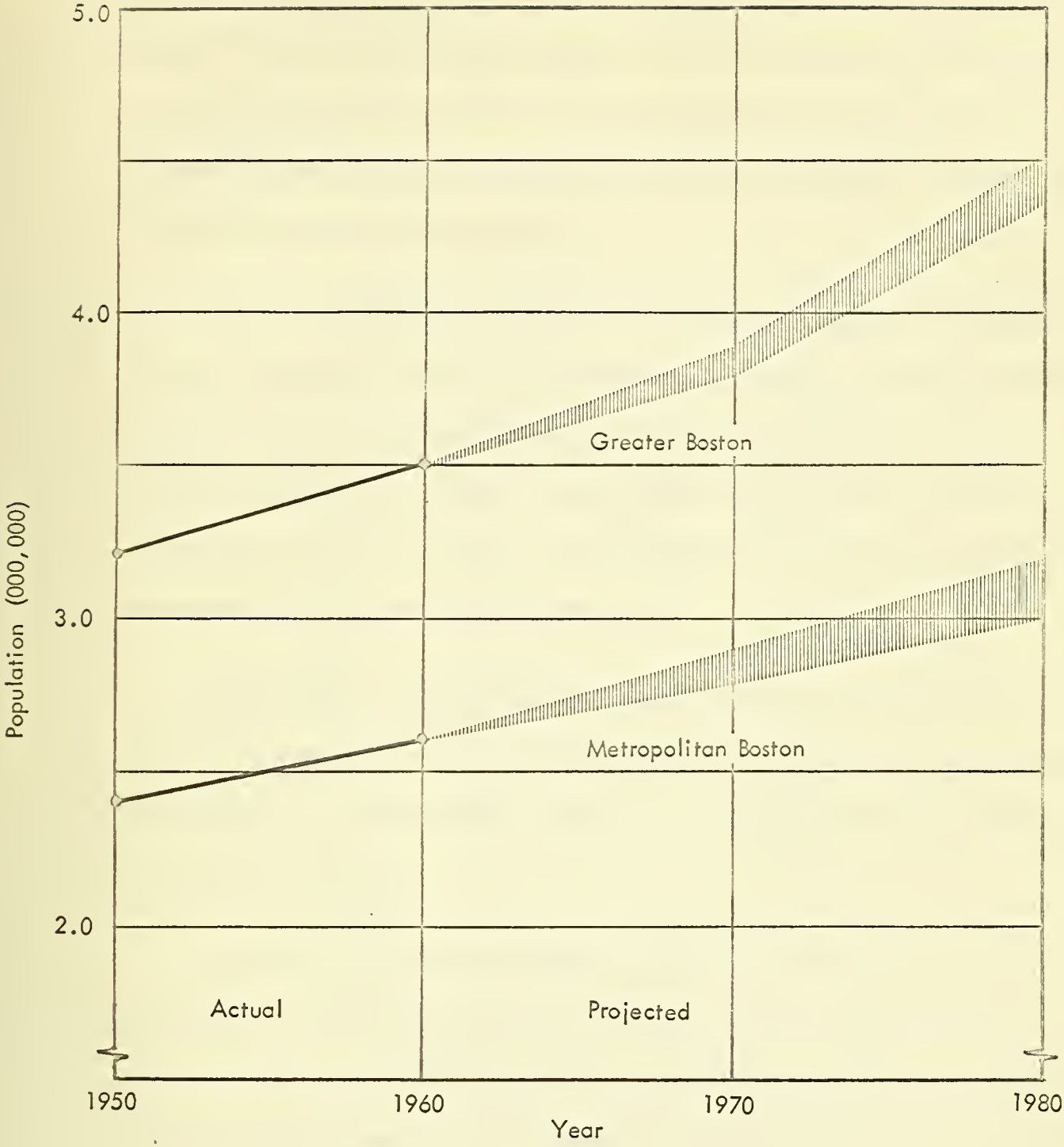
As can be seen the metropolitan population is expected to continue its gradual decline as a percentage of the Greater Boston total. This is consistent with the past pattern of continuing, accelerating growth at the outermost periphery of the region. As this growth has occurred, the metropolitan population even though increasing, accounts for a consistently smaller share of the region-wide total.

Figure 1, on the next page, shows these same area and regional trends in graphic form.

Income Gains

Together with population growth as a major factor in the expansion of area commercial activity, have been the sharp rises in area personal income levels. Boston has not been alone in the nation in this phenomenon. In the postwar period, median income for U.S. families has nearly doubled from $3,031 in 1947 to $5,737 in 1961. Gains at the low end of the income scale -- where direct consumption is greatest as a percentage of total earnings -- have been particularly dramatic.

Figure 1



POPULATION TRENDS AND PROJECTIONS,
BOSTON AREA, 1950-80

In 1947, nearly 50 percent of all U.S. families were in the $3,000 or less income bracket. By 1961, this percentage dropped to 21. In the $3,000 to $5,000 bracket the percentage moved from 31 to 20. During the same period, the number of U.S. families increased by nearly 10 million. These percentage declines consequently, represented a vast shift upward in the income scale.

Part of the income gains were taken up by inflationary factors, but the major share was retained for "real" increases in the capacity to consume and higher standards of living. In terms of constant 1961 dollars, the median income increase was from $4,053 in 1947 to $5,737 in 1961 -- a gain of about $1,700. Almost two-thirds of the gains for the period were "real" based on stable dollars. Similar patterns hold for Boston and other local areas in the nation.

Boston Patterns. Income gains for Boston area families were even sharper than for the nation as a whole. Between 1949 and 1959, the date for which the most recent Census reports area income patterns, median family income rose by $3,171, a 90-percent gain for the decade.

As in the U.S. patterns, major shifts took place in the lower income brackets. Nearly three-fourths of area families earned less than $5,000 in 1949. By 1959, this proportion dropped to less than 30 percent. Upper-income groups also expanded substantially in Boston however. The 1949 proportion of over $10,000 families increased to more than 20 percent by 1959. These shifts were accompanied by an overall increase in the number of area families totaling 92,416. The extent of income gains

at the lower end of the scale was so great that the actual number of families in the under-$5,000 class declined despite the overall population growth.

The record of family income gains for Metropolitan Boston between 1949 and 1959 is shown in Table 2, below.

Table 2. FAMILY INCOME TRENDS, METROPOLITAN BOSTON, 1949-59

Annual Income	1959	1949	Change 1949-59 Number	Change 1949-59 Percent
Under $1,000	15,207	43,670	- 28,463	- 65.2%
$ 1,000 - 1,999	23,312	49,960	- 26,648	- 53.3%
$ 2,000 - 2,999	32,197	106,340	- 74,143	- 70.0%
$ 3,000 - 3,999	45,702	125,840	- 80,138	- 63.7%
$ 4,000 - 4,999	64,861	79,210	- 14,349	- 18.1%
$ 5,000 - 5,999	86,156	52,840	+ 33,316	+ 63.1%
$ 6,000 - 6,999	76,842	29,195	+ 47,647	+163.2%
$ 7,000 - 7,999	67,392	(	(	(
$ 8,000 - 8,999	53,207	(36,070	(+123,909	(+343.5%
$ 9,000 - 9,999	39,380	(	(	(
$10,000 - 14,999	90,769	(	(	(
$15,000 - 24,999	32,431	(24,985	(+111,285	(+445.4%
$25,000 - over	13,070	(	(	(
Total Families	640,526	548,110 1/	+ 92,416	+ 16.9%
Median Income	$ 6,687	$ 3,516	+$3,171	+ 90.2%

1/ Covers families reporting incomes only.

The specific impact of increasing personal incomes on consumer expenditures can be seen directly as a result of surveys recently completed by the U.S. Department of Labor. Although the data drawn from a sample of area residents and the income

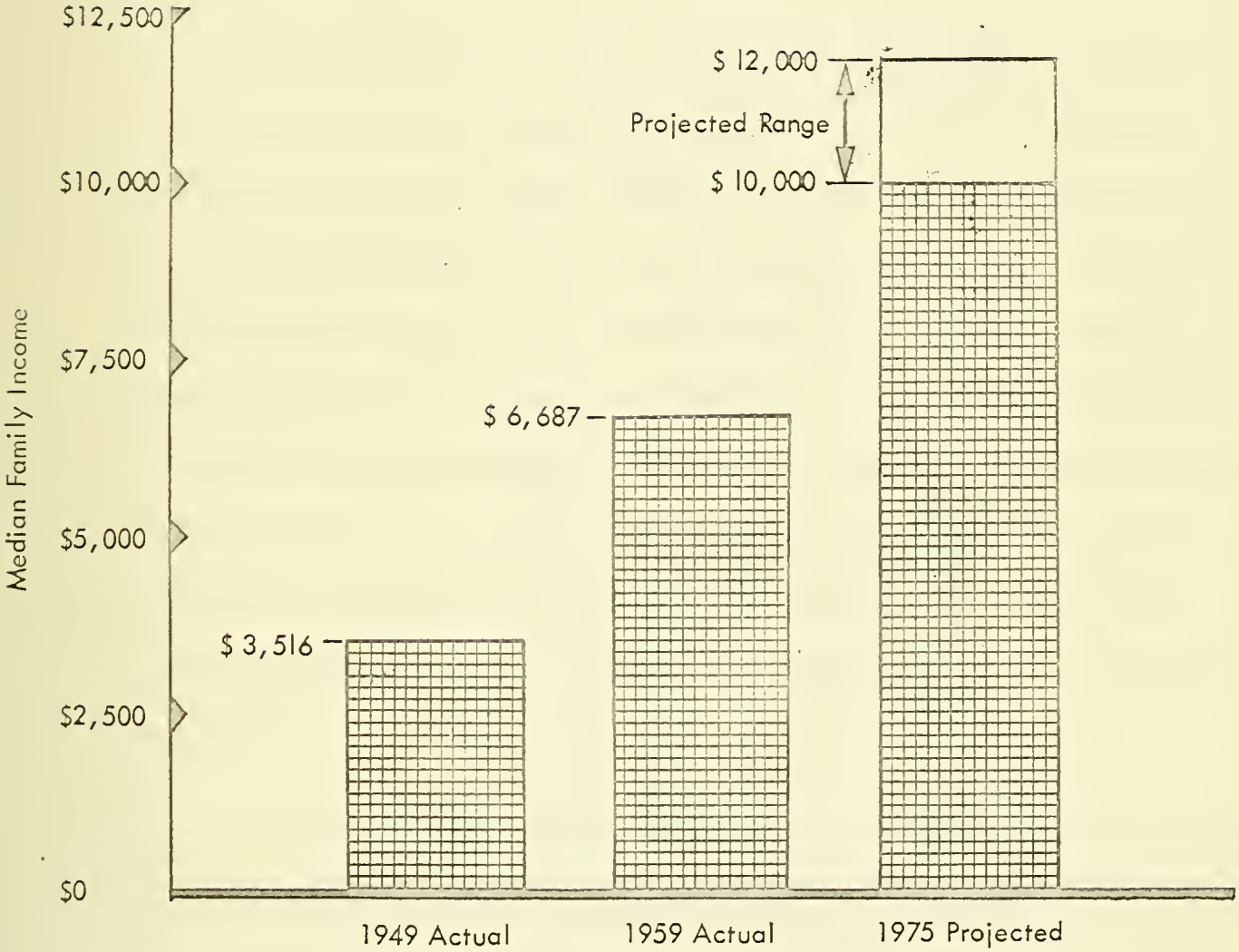
figures are somewhat different from those shown in the preceding table based on Census data, the overall magnitudes are similar however and the results are comparable.

Average incomes for Boston families, in the Department of Labor survey, increased by 91.7 percent between 1950 and 1960. Expenditures for current consumption increased by more than 50 percent during the decade from just under $4,000 in 1950 to more than $6,000 in 1960. Increases in specific categories occurred across-the-boards. Nearly 45 percent of consumption gains were in retail lines including food and beverages, house furnishings and equipment, clothes,personal care and similar items. The remaining share was for such items as shelter, transportation including auto operations, contributions, insurance and savings.

Future Gains. The Boston area, together with the rest of the nation, faces continued prospects for rapid personal income growth during the coming years. Based on increasing productivity at the national level and Boston's position with respect to these gains, area median family incomes should reach at least $10,000 in constant dollars and as high as $12,000 in current dollars by 1975. This would represent gains of 50-plus percent above the 1959 level. By contrast, the gain in the decade just past substantially exceeded this figure. On an average annual basis, the projected rate of gain would be in the three to five percent range as compared to the approximately nine percent recently achieved.

Recent trends and future outlook for area median incomes are shown graphically in Figure 2 on the next page.

Figure 2



FAMILY INCOME TRENDS AND OUTLOOK,
BOSTON AREA, 1959-75

Retail Trade Patterns

As is the case with most cities in the United States during the postwar period, the retail position of the Boston Downtown has shifted. Suburban growth in population and jobs in recent years has created substantial and rapidly growing outlying markets. Convenience goods and more recently, shoppers goods units have moved out to serve these markets.

At first, suburban gains were in relative terms with increasing proportions of total metropolitan sales realized in outlying locations. Such a pattern inevitably accompanies new suburban growth. However, early relative declines in central city areas have in some instances been converted to absolute declines -- that is, sales in downtown stores actually declined in dollar value terms. This has partially been the result of population and purchasing power declines in the central city areas immediately tributary to the downtown and the creation of new, massive competition in full-line department stores -- and more recently in discount houses -- in outlying locations. In addition, such deterrents to downtown stability as the cost and difficulty of new construction and modernization, congestion and parking problems have been contributory factors.

The long-term trend for the key downtown units -- department stores -- is indexed by Federal Reserve Bank figures covering the period from 1919 to 1962. These data cover the reported "best" years in downtown retailing.

In terms of current dollars the overall trend during these four-plus decades has been up. Of course, the depression years of the Thirties showed a distinct trough compared to the Twenties. Picking up in the late-Thirties and Forties however, department store sales climbed steadily to highs in 1951 and 1954-6. Since then there has been a drop-off, sharp in 1956-58 then steady and a modest upturn to 1962.

Adjusting the sales to constant dollars however -- as a measure of the physical volume of sales -- the trends are somewhat different. Sales peaks for the four-decade period were in the late Twenties -- the same era, but slightly later than held by some local opinion. Current levels are running only 75 percent as high as in the peak 1929 year. The downtown started off well at the end of World War II, but has since slumped. The 1946 postwar high of 126.9 was up to levels reached during some years in the Twenties and was 96 percent as high as the 1929 peak. Since 1950, the constant dollar trend has been steadily down. The 1958-59 period marked the postwar low point in both current and constant dollar terms. The picture since 1958 -- in constant dollars -- has been relatively stationary although some upward tendency had been evident through 1961.

> Targets for retail sales gains can be more precisely defined in terms of these data. At the minimum, gross sales 10-15 percent above present levels in 1957-59 dollars should be sought. A more ambitious target would be for sales equivalent to the late Twenties peaks, which are 25-30 percent above present levels. Other alternatives are available and will be discussed further below.

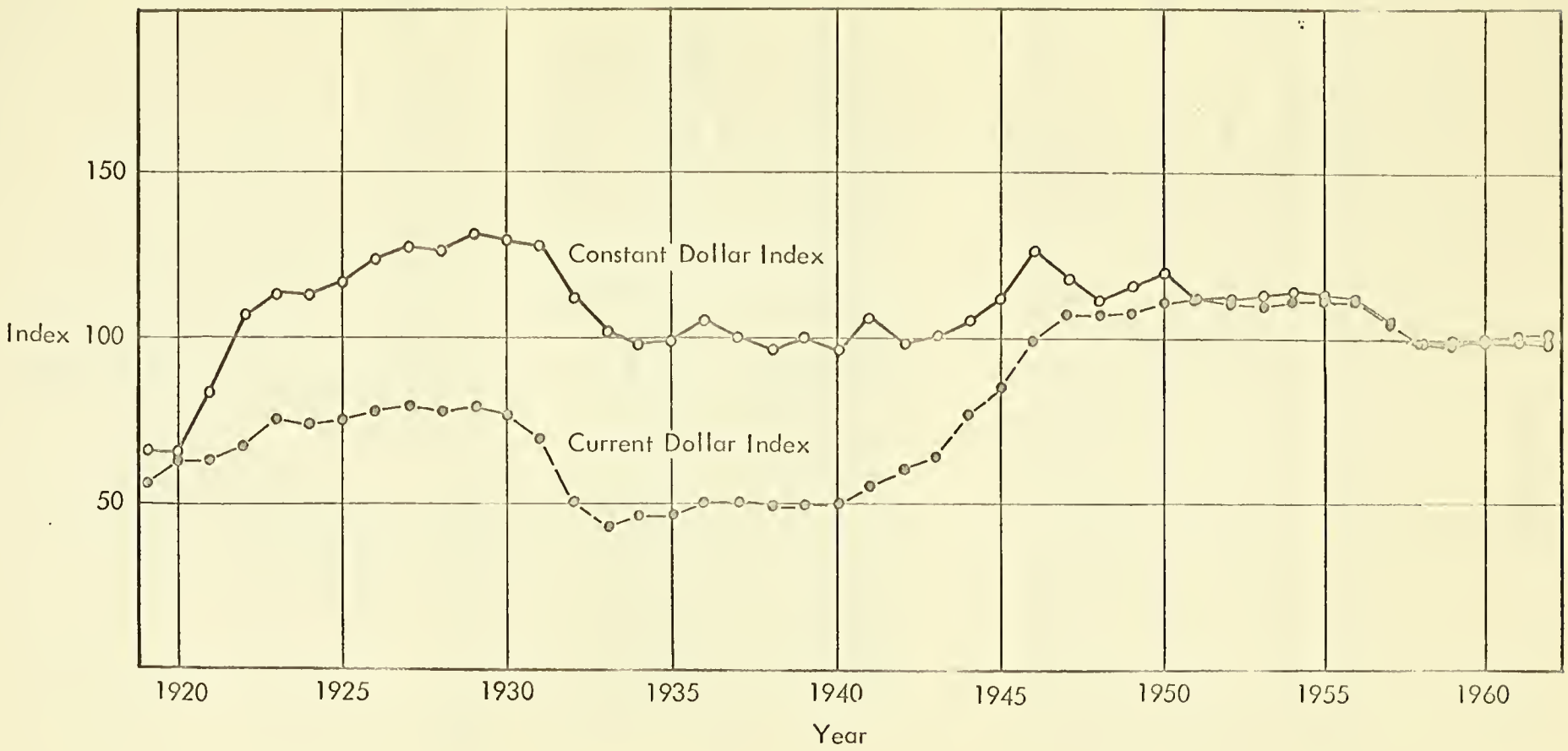
Table 3, on the following page, summarizes the long-term sales trends for downtown department stores.

Table 3. SALES TRENDS, DOWNTOWN BOSTON DEPARTMENT STORES 1/, 1919-1962

Year	Sales Index 2/	Price Index 3/	Adjusted Sales Index 4/	Year	Sales Index 2/	Price Index 3/	Adjusted Sales Index 4/
1919	55	82.2	66.9	1941	55	51.8	106.2
1920	63	98.0	64.3	1942	60	60.5	99.2
				1943	64	63.2	101.3
1921	63	75.4	83.6	1944	72	67.7	106.4
1922	66	61.2	107.8	1945	80	71.1	112.5
1923	70	61.3	114.2				
1924	69	60.9	113.3	1946	99	78.0	126.9
1925	70	59.6	117.4	1947	107	90.5	118.2
				1948	108	96.5	111.9
1926	73	58.7	124.4	1949	108	92.6	116.6
1927	74	57.6	128.5	1950	110	91.4	120.4
1928	72	56.8	126.8				
1929	74	56.2	131.7	1951	112	99.6	112.5
1930	71	54.9	129.3	1952	110	98.6	111.6
				1953	110	97.7	112.6
1931	64	50.0	128.0	1954	111	97.2	114.2
1932	50	44.3	112.9	1955	111	96.6	115.0
1933	44	42.8	102.8				
1934	46	46.8	98.3	1956	111	98.3	113.0
1935	47	47.2	99.6	1957	104	99.6	104.4
				1958	98	99.7	98.3
1936	50	47.5	105.3	1959	98	100.6	97.4
1937	50	50.0	100.0	1960	100	102.1	97.9
1938	48	49.8	96.4				
1939	49	49.0	100.0	1961	102	102.8	99.2
1940	50	49.6	96.4	1962	101	103.2	97.9

1/ Covers Downtown Boston stores in FRB Survey.
2/ Annual average index; base years 1957-59 equal 100; Source: FRB of Boston; July 1962 report.
3/ CPI Series, apparel commodity group; Source: BLS, adjusted to 1957-59 base.
4/ Sales series adjusted to constant dollars based on price index.

These trends, in terms of constant and current dollars, are illustrated in Figure 3 on the next page.



SALES TRENDS, DOWNTOWN BOSTON
DEPARTMENT STORES, 1919-62

Figure 3.

A more detailed look at recent trends shows that retail sales declined in absolute terms in Downtown Boston between 1954 and 1958, the most recent period for which comprehensive retail figures are available through the Census of Business. The area covered by these data generally conforms to the downtown, including the heart of the retail section but excludes the Back Bay specialty group west of Charles Street. These absolute declines in downtown retailing activity took place during the period when both City of Boston and metropolitan area sales were growing. Consequently, the decline of the downtown "share" in regional sales activities was more rapid than might have been the case had downtown sales volumes been maintained at a steady level or even increased only slightly.

> The overall declines in the level of downtown sales during the four-year period, were relatively small as a proportion of the total -- only 3.8 percent or approximately $16 million. The 1954 total sales were nearly $420 million and the 1958 figure was slightly more than $403 million. The major drop was in department store units. As previously noted, the 1954-58 trend exagerated the recent patterns with a high mark in recent years shown in 1954 and the low mark in 1958. Other losses were in apparel and home furnishings. Partially off-setting gains were recorded for miscellaneous retail units and eating and drinking places.

The data on central business district trends in Downtown Boston for 1954-58 by store types are shown in Table 4 on the following page.

Table 4. RETAIL SALES TRENDS DOWNTOWN BOSTON, 1954-58

	Sales ($000)		Change 1954-58	
	1958	1954	$ Sales	Percent
General Merchandise				
Department Stores	$189,260	$198,885	$- 9,625	- 4.8%
Variety Stores	8,057	8,297	- 240	- 2.9%
Other General Merchandise	4,385	4,766	- 381	- 8.0%
Sub-total	($201,702)	($211,948)	($-10,246)	(- 4.8%)
Apparel.				
Men's and Boy's	$ 18,348	$ 16,301	$ 2,047	12.6%
Women's	25,572	24,411	1,161	4.8%
Family	1,486	2,044	- 558	-27.3%
Shoes	11,380	12,636	- 1,246	- 9.9%
Other	807	8,533	- 7,726	-90.5%
Sub-total	($ 57,593)	($ 63,915)	($- 6,322)	(- 9.9%)
Furniture, Home Furnishings, Equipment.				
Furniture Stores	$ 10,870	$ 14,975	$- 4,105	-27.4%
Other Home Furnishings	2,252	2,421	- 169	- 7.0%
Appliances	7,646	9,871	- 2,225	-22.5%
Sub-total	($ 20,768)	($ 27,267)	($- 6,499)	(-23.8%)
Food	$ 12,836	$ 13,310	$- 474	- 3.6%
Drugs	4,958	4,437	521	11.7%
Automotive Dealers	612	.818	- 206	-25.1%
Gasoline Service Stations	1,540	1,203	337	28.0%
Lumber, Build.Mat.; Hardware				
Hardware	2,130	2,480	- 350	-14.1%
Other	493	954	- 461	-48.3%
Sub-total	($ 2,623)	($ 3,434)	($- 811)	(-23.6%)
Other Retail:				
Liquor	$ 7,941	$ 7,055	$ 886	12.6%
Books, Stationery	7,198	6,510	688	10.6%
Sporting Goods, Bicycles	584	511	73	14.3%
Jewelry	14,958	15,394	- 436	- 2.8%
Florist	633	592	41	8.3%
Camera	2,772	1,836	936	51.0%
Other	17,482	15,182	2,300	15.1%
Sub-total	($ 51,568)	($ 47,080)	($ 4,488)	(9.5%)
Eating and Drinking:				
Eating	$ 39,456	$ 37,458	$ 1,998	5.3%
Drinking	9,727	8,660	1,067	12.3%
Sub-total	($ 49,183)	($ 46,118)	($ 3,065)	(6.6%)
ALL RETAIL	$403,383	$419,530	$-16,147	- 3.8%

Sales gains for the City of Boston and the metropolitan area between 1954 and 1958 -- showing overall gains as well as gains in individual lines -- are summarized in Table 5, below.

Table 5. RETAIL SALES TRENDS, CITY OF BOSTON AND METROPOLITAN AREA, 1954-58

	City of Boston		Metropolitan Boston	
	1958	1954	1958	1954
General Merchandise:				
Department Store	NA	NA	$ 314,519	$ 285,522
Variety Store	$ 19,896	$ 18,830	54,343	46,758
Other General Merchandise	NA	NA	54,064	28,942
Sub-total	($ 242,598)	($ 244,474)	($ 422,926)	($ 361,222)
Apparel:				
Men's and Boy's	$ 29,527	$ 25,838	$ 48,487	$ 40,745
Women's	58,434	50,582	122,356	87,900
Family	9,803	5,060	33,945	39,254
Shoes	20,922	22,031	41,025	38,222
Other	2,884	14,512	7,903	20,579
Sub-total	($ 121,570)	($ 118,023)	($ 253,716)	($ 226,700)
Furniture, Home Furn., Equip.:				
Furniture Stores	$ 31,178	$ 29,955	$ 62,928	$ 60,625
Other Home Furnishings	7,552	9,351	21,376	22,997
Appliances	27,877	22,115	63,639	50,177
Sub-total	($ 66,607)	($ 61,421)	($ 147,943)	($ 133,799)
Food	$ 247,131	$ 235,002	$ 836,121	$ 686,462
Drugs	$ 38,947	$ 35,957	$ 112,789	$ 93,625
Automotive Dealers	$ 128,064	$ 131,240	$ 445,845	$ 433,256
Gasoline Service Stations	$ 41,319	$ 29,696	$ 164,723	$ 116,301
Lumber, Build. Mat.; Hardware:				
Hardware	$ 11,009	$ 11,786	$ 34,159	$ 36,597
Other	19,020	18,006	107,902	102,293
Sub-total	($ 30,029)	($ 29,792)	($ 142,061)	($ 138,890)
Other Retail:				
Liquor	$ 48,408	$ 38,164	$ 109,462	$ 84,074
Books, Stationery	NA	10,342	21,260	16,741
Sporting Goods, Bicycles	1,490	2,508	6,704	5,643
Jewelry	21,331	26,502	31,633	36,744
Florists	3,813	3,203	11,739	9,656
Camera	4,895	3,935	9,134	6,349
Other	-	66,671	227,359	175,800
Sub-total	($ 174,569)	($ 151,325)	($ 302,084)	($ 247,233)
Eating and Drinking:				
Eating	$ 110,782	$ 91,357	$ 232,177	$ 183,999
Drinking	39,359	34,914	69,907	63,234
Sub-total	($ 150,141)	($ 126,311)	($ 302,084)	($ 247,233)
ALL RETAIL	$1,240,975	$1,163,242	$3,245,499	$2,772,495

Future Outlook

The historical pattern of downtown sales as a proportion of city and metropolitan totals, shows a downtrend in the central business area. In the key general merchandise units in 1948 for example, downtown stores accounted for approximately two-thirds of metropolitan area sales. By 1954, only six years later, this proportion declined to 59 percent Dropping more sharply during the next four years up to 1958, the downtown general merchandisers recorded 48 percent of the metropolitan totals. The general merchandise group also declined in dollar sales -- together with other retail units -- between 1954 and 1958. Similar trends in metropolitan shares for department stores, the remaining shoppers goods units as well as other retail outlets in the downtown have taken place in recent years.

Trends in percentage distribution of sales in key stores to various portions of the region in 1948, 1954 and 1958 are shown in Table 6 on the following page.

Table 6. RETAIL SALES DISTRIBUTION BY STORE TYPES, METROPOLITAN BOSTON AND KEY SUBAREAS, 1948-54-58

Store Types	Sub-area: Downtown	Sub-area: Rest of City	Sub-area: Outside of City	Metropolitan Total
A. 1948 Actual				
1. General Merchandise Stores	66.9%	8.8%	24.3%	100.0%
Department Stores	77.1%	- 22.9% - 1/		100.0%
2. Apparel	38.5%	25.5%	36.0%	100.0%
3. Furniture	19.4%	34.9%	45.7%	100.0%
4. Food Stores	3.7%	33.4%	61.8%	100.0%
5. Drugs	5.7%	19.7%	60.9%	100.0%
6. Hardware	7.3%	29.8%	76.6%	100.0%
7. Other Retail	18.0%	34.3%	52.2%	100.0%
8. Eating and Drinking	20.8%	30.1%	44.9%	100.0%
B. 1954 Actual				
1. General Merchandise Stores	58.8%	8.9%	32.3%	100.0%
Department Stores	69.7%	- 30.3% - 1/		100.0%
2. Apparel	28.5%	23.6%	47.9%	100.0%
3. Furniture	21.2%	23.6%	55.2%	100.0%
4. Food Stores	2.5%	39.2%	58.3%	100.0%
5. Drugs	4.7%	33.3%	62.0%	100.0%
6. Hardware	6.8%	18.5%	78.5%	100.0%
7. Other Retail	15.7%	29.9%	54.4%	100.0%
8. Eating and Drinking	18.7%	32.4%	48.9%	100.0%
C. 1958 Actual				
1. General Merchandise Stores	47.7%	9.7%	42.6%	100.0%
Department Stores	60.2%	- 39.8% - 1/		100.0%
2. Apparel	22.7%	25.2%	52.1%	100.0%
3. Furniture	14.0%	31.0%	55.0%	100.0%
4. Food Stores	1.5%	28.1%	70.4%	100.0%
5. Drugs	4.4%	30.1%	65.5%	100.0%
6. Hardware	6.2%	19.3%	74.5%	100.0%
7. Other Retail	12.4%	29.4%	58.2%	100.0%
8. Eating and Drinking	16.3%	33.4%	50.3%	100.0%

1/ Not given for City - Figure covers rest of Metropolitan Area outside City.

There are a number of directions in which future downtown sales might move. Principal among factors in determining the ultimate direction of downtown trends would be the character and effectiveness of programs for downtown renewal. The outlook is for three alternative patterns -- continued decline, sharp increases or moderate expansion. Each of these is discussed more specifically as follows:

1. Continued Decline. This pattern would be a continuation of recent declines in downtown retail sales totals. Under these conditions, another $68 million drop in downtown sales could be expected for a 1975 level of $335 million. This figure assumes little or no action on major public programs within the retail core, minimum effectiveness in present central city renewal operations, minimum improvements to streets and highways and a minor expansion in the off-street parking inventory.

2. Major Increases. This pattern would maintain current "shares" of metropolitan sales in the downtown to 1975, even though new area-wide totals would be established as a result of new population gains, expanded personal income and higher per capita expenditures for key retail items. Under these circumstances, downtown sales of approximately $550 million could be expected in 1975 -- nearly $150 million higher than the present level. Of course, should the downtown "shares" increase beyond present rates, these figures would be even higher. Although not impossible, these sales figures would be difficult to achieve. They would require a complete reversal of past downtrends in downtown sales shares. At the minimum, such steps as successful major overhaul in the retail core, drastic upgrading of the transit system and major increases in its utilization for shopping purposes, new highways, extended downtown parking and similar efforts would be required.

3. Moderate Expansion. This pattern would reverse the recent absolute drops in sales and slow the rate of decline for downtown sales "shares". The opportunity here is for a $465 million downtown sales level by 1975. Although the program to achieve this figure would call for vigorous efforts to modernize and reconstruct the downtown, the program would be realistic. Overhaul and retail expansion at the core would be necessary. Further expansion of nearby markets in daytime office workers and close-in apartments would be needed. Transit upgrading would be necessary

and efforts to expand downtown attractions to visitors would be called for. Further details on the basis for reaching the figure expected under a "moderate expansion" projection are set forth below.

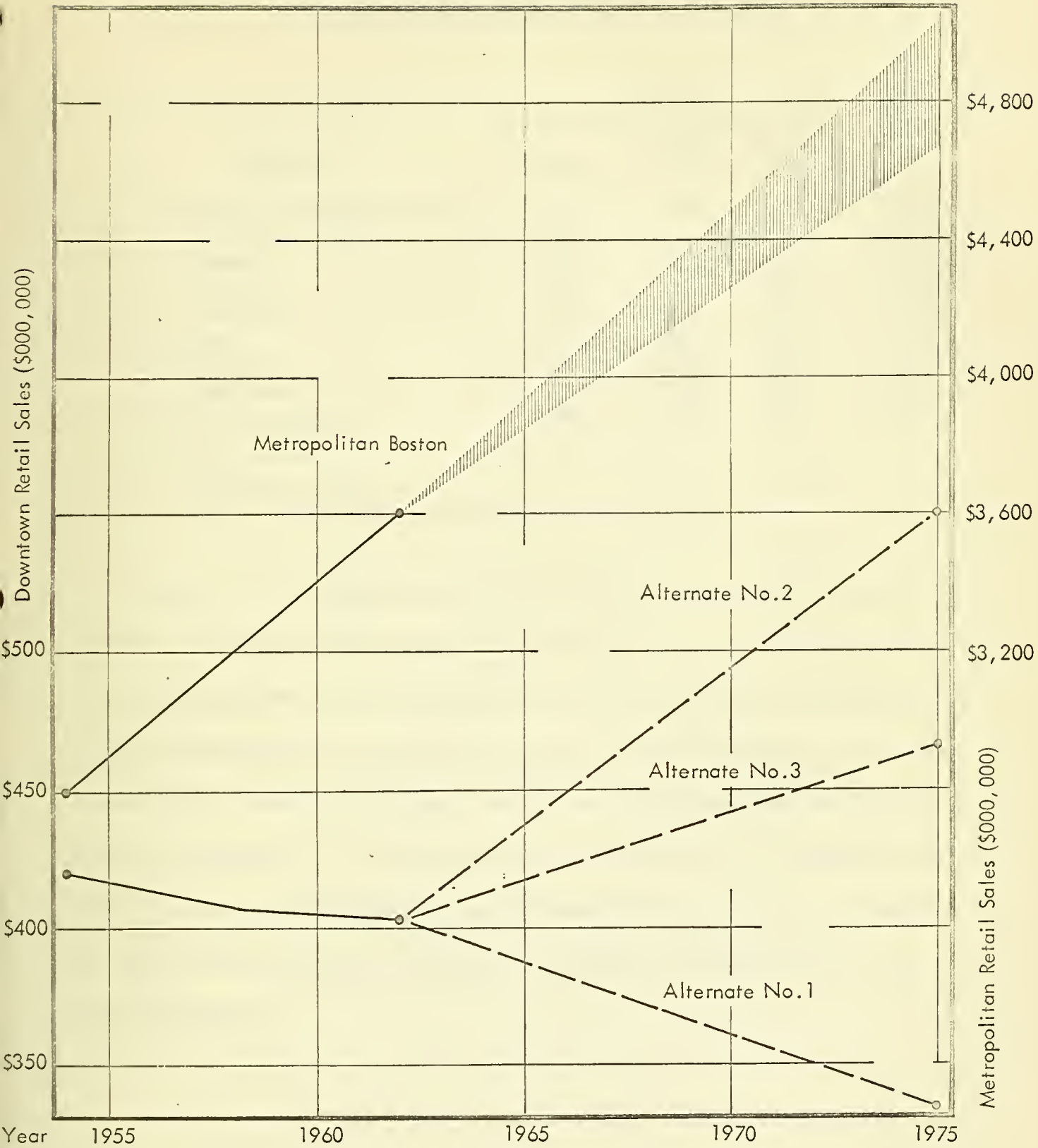
The three alternative trends for downtown sales up to 1975 are graphically illustrated in Figure 4 on the next page.

Projected Sales

In analyzing the third of the three alternative patterns previously set forth -- a moderately expanding sales trend -- the "shares" for key market subareas within the metropolitan region can be projected. Combined with anticipated patterns of expenditure in major store types related to income gains and new population, expected new sales levels for the downtown can be established. The projected 1975 figures, measured against the current base, will determine specific gains by key store types. Gains in the key store units would provide the basis for a supplementary group of related stores all of which could be tied into a new commercial complex.

In Table 7, on the following page, the 1975 projections of metropolitan sales to key sub-markets are set forth. They conform to the general guidelines already set forth and have "built in" gains attributable to growth in the multi-state regional trade area.

Figure 4.



SALES TRENDS AND PROJECTIONS,
BOSTON AREA, 1954, 1958 AND 1975

Table 7. PROJECTED 1975 SALES DISTRIBUTION BY STORE TYPES, METROPOLITAN BOSTON AND KEY SUBAREAS.

Store Type	Subarea: Downtown	Subarea: Rest of City	Subarea: Outside of City	Metropolitan Total
1. General Merchandise Stores	40%	12%	48%	100.0%
Department Stores	50%	-	50% - 1/	100.0%
2. Apparel	20%	25%	55%	100.0%
3. Furniture	10%	30%	60%	100.0%
4. Food Stores	1%	25%	74%	100.0%
5. Drugs	4%	30%	66%	100.0%
6. Hardware	5%	20%	75%	100.0%
7. Other Retail	10%	30%	60%	100.0%
8. Eating and Drinking	15%	30%	55%	100.0%

1/ Not given for City.
Figure covers rest of metropolitan area outside of city.

Table 8 on the next page summarizes the results of retail sales calculations for 1960 and 1975. Only those outlets handling downtown-type merchandise are included. Food in bulk, auto sales and services and selected other units are omitted. The 1960 population is for the metropolitan area as reported in the Census. The 1975 population is as previously projected, or 3,025,000. Per capita expenditures for 1960 are based directly on actual patterns in recent years. The anticipated per capita expenditures for 1975 represent conservative projections of the effects of personal income increases on consumption patterns and directly reflect the patterns established in the Department of Labor studies on consumer expenditures.

Table 8. RETAIL SALES ESTIMATES, METROPOLITAN BOSTON AND KEY SUBAREAS, 1960 AND 1975

Selected Lines	Per Capita Expenditures	Estimated Sales ($000,000) Downtown	Rest of City	Outside of City[a]	Metropolitan Total
A. 1960 Pattern:					
General Merchandise	$165	$203.8	$ 41.5	$182.1	$427.4
Apparel	$100	$ 58.8	$ 65.3	$134.9	$259.0
Furniture	$ 60	$ 21.8	$ 48.2	$ 85.5	$155.5
Drugs	$ 45	$ 5.1	$ 35.1	$ 76.3	$116.5
Hardware	$ 15	$ 2.3	$ 7.5	$ 29.1	$ 38.9
Other Retail	$165	$ 53.0	$126.0	$248.4	$427.4
Eating and Drinking	$120	$ 50.7	$103.8	$156.3	$310.8
B. 1975 Pattern:					
General Merchandise	$185	$223.0	$ 67.0	$269.0	$559.0
Apparel	$105	$ 62.6	$ 79.0	$173.4	$315.0
Furniture	$ 75	$ 22.3	$ 68.0	$134.7	$225.0
Drugs	$ 45	$ 5.1	$ 40.0	$ 89.9	$135.0
Hardware	$ 20	$ 2.6	$ 12.0	$ 45.4	$ 60.0
Other Retail	$200	$ 60.5	$181.0	$363.5	$605.0
Eating and Drinking	$130	$ 58.9	$118.0	$216.1	$393.0

Key gains during the 15-year period are expected for the shoppers goods lines in general merchandise and apparel. Furniture should be stationary as this store type continues to suburbanize -- reaching for the new home markets being established in outlying locations. Convenience items, drugs and hardware are stable in terms of support expected from regional trade. Food, not involved in the regional-type sales activity most relevant to downtown operations, is not analyzed here. Miscellaneous stores -- gifts, florists, cameras, hobby, toys, etc. -- are expected to gain strongly, as are eating and drinking places.

Retail changes, based on the projections up to 1975 for key downtown-type stores are summarized in Table 9, below:

Table 9. RETAIL SALES PROJECTIONS; SELECTED LINES, DOWNTOWN BOSTON, 1960-75

	Downtown Sales ($000,000)		
	1975	1960	Change 1960-75
General Merchandise	$223.0	$203.8	$19.2
Apparel	62.6	58.8	3.8
Furniture	22.3	21.8	0.5
Shoppers Goods	($307.9)	($284.4)	($23.5)
Drugs	$ 5.1	$ 5.1	-0-
Hardware	2.6	2.4	0.2
Other Retail	60.5	53.0	7.5
Convenience and Miscellaneous	($ 68.2)	($ 60.5)	($ 7.7)
Eating and Drinking	$ 58.9	$ 50.7	$ 8.2
Total, Selected Lines	$435.0	$395.6	$39.4

Other Growth Factors

Apart from sales gains based on increased purchasing power in the region, a number of other factors can be expected to make substantial new contributions to downtown commercial activities by 1975. Principal among these would be the new residential population expected in the downtown and other nearby areas as part of the close-in residential rebuilding program under urban renewal; the expanded work force in the downtown office buildings; and the increased number of visitors from outside the region staying in the new downtown hotels, attending conventions or touring the area for pleasure purposes. Gains in trade based on the multi-state trade area outside of Metropolitan Boston, have already

been accounted in the previous sections. The specific implications for new downtown commercial development in each of these factors are discussed below.

Residential Gains

A minimum of approximately 6,000 new apartments are projected in the downtown and immediately adjacent areas -- as will be seen in a subsequent section on residential potential. These units can be expected to generate a total population of some 15,000 persons. In addition, thousands of additional units are being proposed in other close-in sections of the city for construction during the next period of years up to 1975. On the basis of these proposals and population policies and potentials for the city, an increased population of 35,000-50,000 more persons can be expected in Boston by 1975.

The downtown commercial complex would be in a position to account for the dominant share of the retail expenditures made by this group of new close-in residents. We would conservatively estimate that approximately $15 million -- a modest share of total purchasing power -- would be spent by these new residents in key sales units in the downtown. The total would be distributed as follows:

General Merchandise	$ 3.7 Million
Apparel	2.5
Home Furnishings	1.5
Drugs	1.0
Hardware	0.3
Other Retail	3.5
Eating and Drinking	2.5
Total	$15.0 Million

Office Employment

A net gain of more than 40,000 employees is projected by 1975 in the central area. The downtown would account for the greatest portion of this total. Concentrated in the office-using group, these new workers would be "housed" in more than six million square feet of additional office space in downtown and adjacent areas.

This expanded work group -- a "captive" daytime market -- would pump an estimated six million dollars into downtown commercial activities. The largest share of the worker's downtown dollar would go to the proprietors of restaurants and other eating places. The expected distribution of total expenditures would be as follows:

General Merchandise	$1.2 million
Apparel	0.7
Home Furnishings	0.5
Drugs	0.2
Hardware	0.1
Other Retail	0.9
Eating and Drinking	2.4
Total	$6.0 million

Visitors

New transient accommodations scheduled for the close-in areas up to 1975 total 3,500 units. Based on average occupancy rates, these new units alone should generate approximately 1,000,000 visitor-nights a year by 1975. Typical patterns of tourist expenditures would result in the following estimated additions to downtown commercial volumes:

General Merchandise	$0.9 million
Apparel	0.5
Drugs	0.3
Other Retail	0.6
Eating and Drinking	2.0
Total	$4.3 million

The above figure would account for only a part of the total visitor expenditure in the area. Major outlays for lodging, auto and other transportation as well as miscellaneous items such as personal services and amusement would also be necessary even though not a part of the retail sales and service group analyzed here. In addition to overnight visitors in downtown hotels, other daytime visitors to the area would also make downtown area purchases. These are conservatively omitted from this calculation however.

Commercial Space Potential

The anticipated gains in retail sales from the preceding sources between 1960 and 1975 provide a basis for projecting new commercial square footage supportable during the coming period. Total downtown gains expected to 1975 based on trade area gains as well as other factors -- conservatively estimated in terms of moderately expanding sales levels -- are summarized in Table 10, on the following page.

Table 10. SUMMARY OF DOWNTOWN SALES GAINS BY SOURCE, 1960-75

Store Type	Sales ($000,000) Trade Area Growth	Other Factors	Total Gains
General Merchandise	$19.2	$ 5.8	$25.0
Apparel	3.8	3.7	7.5
Furniture	0.5	2.0	2.5
Shoppers Goods	$23.5	$11.5	$35.0
Drugs	-0-	$ 1.5	$ 1.5
Hardware	$ 0.2	0.4	0.6
Other	7.5	5.0	12.5
Convenience and Miscellaneous	$ 7.7	$ 6.9	$14.6
Eating and Drinking	$ 8.2	$ 6.9	$15.1
Total	$39.4	$25.3	$64.7

Based on unit sales per square foot averaging in the $60-65 range for a balanced complement of retail sales and service units, approximately 1,000,000 square feet of new space would be supportable by the gains shown. This space could be accounted for by additions to existing units or in entirely new structures. There is of course a definite potential, as already indicated for even higher sales figures than used in projecting the 1,000,000 new square feet. In achieving these higher figures, increased sales in existing units, perhaps badly needed in some cases, could be realized. At the minimum however, an expansion of approximately 1,000,000 square feet in new commercial space is strongly recommended as necessary to maintain the downtown role in the retail sales and service field and to continue to attract regional shoppers to the downtown.

The projected space requirements for the central area as developed above meet only major shopping needs in the downtown. In addition to the retail and service space projected, specialized facilities designed to meet small area markets in the vicinity of office buildings, for example, or in residential neighborhoods would also be possible in addition to these indicated space needs.

The 1,000,000 square feet indicated as supportable in terms of projected sales gains and space productivity would be made up of a variety of specific types of commercial space including general merchandise, apparel, furniture, drugs, hardware, eating and drinking places, personal and repair services as well as other types of units. Locations for the new square footage would be primarily in the immediate vicinity of the already established core. This would be particularly true of the retail sales units. Service facilities -- including restaurants and other units -- might be appropriately scattered to other locations throughout the core.

Staging for the commercial areas should be tied directly to the creation of new downtown markets -- especially for the major retail units. Although some service outlets should be built for openings in the near future -- in the middle Sixties -- much of the retail sales area would be supported by markets which would not "mature" until later in the Sixties or early Seventies. Planning for all these units should begin now however, even though actual opening dates would still be some time off for most of the units.

Part B. Office Space

Specific objectives in this study of the long-term downtown outlook were to determine opportunities for redevelopment and to redefine the downtown role in the future metropolitan development pattern. The economic and functional aspects of Downtown Boston:1962 are vastly different than in past years -- although the physical "equipment" it uses has largely been carried forward from previous days. The view of the downtown as a retail center is a gross over-simplification today. Even though downtown retailing is a vital and -- as seen in the preceding section -- growing function, the main thrust of future downtown development opportunity and functional responsibility lies elsewhere.

Recent trends show that service functions -- the non-goods producing activities including finance, insurance and real estate; government; the professions; distribution functions; and even non-production workers of manufacturing firms, most of whom are housed in offices -- have been the fastest growing employment sectors. Boston trends, in line with national patterns, show major gains in these fields. The downtown, despite tremendous handicaps, has already evidenced its potential in these activities by its records of employment growth.

> It is the main task of the GNRP plan to "recast" the downtown in terms of these new trends and opportunities. The downtown must position itself in its development programs to compete for and serve potential markets for a broad new variety of office needs in the service fields.

In this part of the report the expected dimensions of the downtown office opportunity are set forth. The basis for the future office projections, best established in terms of four key factors, are as follows:

1. Employment Gains. Potential gains in office-using employment sectors within the downtown -- based on recent trends for both downtown and metropolitan area -- set the overall framework for new demand during the coming years. "Intensity" of space use in terms of worker density, establishes the total volume of supportable office area under the expected employment.

2. Recent Metropolitan Market. Recent patterns of office construction in Metropolitan Boston determine the scale of the area-wide market. Types of user and rates of absorption in various locations are analyzed in terms of decentralization considerations and downtown-related demand.

3. Downtown Market Trends. The existing inventory of downtown office space -- its location, age, quality, type of occupant and proportion utilized at present -- indicate the scale and character of the current downtown market. Specific performance in terms of recent absorption rates provides a point of reference in evaluating the projections based on employment gains and metropolitan markets.

4. Comparative Factors. A general yardstick for future office demand can be established in terms of projected metropolitan population, patterns of economic development and per capita square footage in office space. Comparisons with earlier independent projections and records of postwar office development in downtown areas provide additional yardsticks for the reasonableness of Boston's outlook.

Analysis for each of the four preceding factors is set forth in the paragraphs which follow. The overall outlook on all counts is for substantial new potential in Downtown office space. This potential stands in addition to the buildings now under construction, presently committed or firmly projected.

Demand Based on Employment Gains

Detailed studies of employment trends and projections by industry group for the Boston Region have been completed by the Greater Boston Economic Study Committee, the Boston City Planning Board as well as the BRA. Basic data in these recent studies have been drawn from authoritative sources. The time periods covered run in sequence from 1947 forward to 1975.

Two projection series from the Planning Board study are of direct interest in this analysis. These are anticipated employment gains by major activity for the metropolitan area and for downtown. The projections cover an expected 18-year span, beginning in 1957 and terminating in 1975. Developed against the background of recent trends in both metropolitan and downtown areas, the projections appear both reasonable and attainable.

> The rate of metropolitan gain projected for the Boston area during the 1957-75 period totals approximately 18 percent -- in line with the general level of population increase expected for the same period. In 1957, area employment was 1,022,511. Gains in all industry groups aggregating 188,300 are expected by 1975 bringing the total for that year to 1,210,800 jobs.

Major growth sectors, the projection shows, would be in finance, utilities, construction and manufacturing, each of which would gain about 20 percent or more in the projection period. Services, including government and retailing would also show strong gains. Manufacturing would be the major growth sector in numerical terms -- adding more than 60,000 workers. The services and government group would add approximately

50,000. Retail, with a 25,000 job gain and finance with 23,000 would fall next in line. Steady levels would be maintained in agriculture and mining.

Within the metropolitan totals, all major radial zones -- core, inner and outer belts -- would show employment gains. There would however, be a gradual outward shift of jobs. The core section -- including the City of Boston and adjacent intensively developed areas -- would, according to the projections, show a gain of 96,000 jobs despite a slight relative decline in its share of all employment. The projected core gain would represent an 11.4 percent increase between 1957 and 1975. By contrast, the inner-ring job total is expected to increase 25 percent and the outer-ring job total by 27 percent. Job changes by subarea are discussed more specifically below in connection with expected downtown shifts.

The figures for job changes in the metropolitan area between 1957 and 1975 are summarized in Table 11 on the following page:

Table 11. EMPLOYMENT PROJECTIONS BY MAJOR ACTIVITY, METROPOLITAN BOSTON, 1957-75

Activity	Number Employed (000) 1957	Number Employed (000) 1975	Change 1957-75 Number	Change 1957-75 Percent
Manufacturing	296.3	358.7	62.4	21.1%
Agriculture	3.1	3.2	0.1	-
Mining	1.3	1.5	0.2	-
Construction	48.5	58.1	9.6	19.8%
Transportation, Communication and Public Utilities	63.9	77.0	13.1	20.5%
Wholesale Trade	75.0	79.5	4.5	6.0%
Retail Trade	163.7	188.6	24.9	15.2%
Finance, Insurance and Real Estate	68.1	90.8	22.7	33.3%
Services & Miscellaneous (Including Government)	302.6	353.4	50.8	16.8%
Total	1,022.5	1,210.8	188.3	18.4%

The projections shown above were made in the light of actual shifts in the metropolitan area in the decade 1947-57. In this period, the overall rate of job gains totaled 9.2 percent -- approximately the same average rise on an annual basis as that projected. The increases for major activity groups -- especially in finance, services, manufacturing and to a lesser extent, utilities and construction -- also indicated strong trends which were carried forward into the projections.

Between 1957 and 1962, area employment has increased at an average rate of approximately 12,000 jobs per year -- faster than the rate required to realize the projected gains to 1975. In terms of key activity groups, however, these latest trends have strongly favored the service and government group, and wholesale and retail as against manufacturing and other sectors. For the past five years, service and government jobs have been increasing at four times the rate anticipated in the long-range calculations. Retail and wholesale have been growing at about twice the rate originally expected. Continuation of the 1957-62 trends would result in substantially greater emphasis on office-using activities by 1975. In the interests of a conservative office area projection however, the original employment forecasts were used in this analysis.

Downtown Jobs. The Planning Board projections show an overall 25,000-job gain for the downtown during the period between 1957 and 1975. This would represent a 12 percent gain over the 211,800 downtown jobs in 1957, bringing the projected 1975 figure to 237,000 jobs in all categories of activities.

> The area covered in the "CBD" as defined by the Planning Board in its analysis is somewhat larger than the downtown as used in the GNRP and in this report. The principal differences in the two areas is in the Back Bay coverage under the Planning Board boundaries. Because the present and future Back Bay office concentration is fully accounted in this analysis as effectively competing for the downtown market, employment projections geared to this broader area are directly useful here.

Downtown total employment accounted for approximately 21 percent of metropolitan jobs in 1957. The projected 1975 figure would result in a decrease in the downtown job share -- despite the projected numerical gains -- to 19.5 percent of the metropolitan total. This relative decline is in line with the patterns of outward shift underway throughout the post World War II period. Between 1947 and 1957, the downtown decline was approximately five points -- from 26 to 21 percent -- a figure sufficiently high to reflect an absolute drop estimated at 14,000 jobs.

The projected employment figures when analyzed by specific activity show continued losses for several sectors -- principally in manufacturing, wholesale and retail jobs. Construction is expected to remain stationary in job terms. Other losses, less substantial in percentage and numerical terms, show in transportation, communication and public utilities. In the aggregate, losses in these groups would account for approximately 24,000 jobs in the downtown. The same group -- excepting utilities -- declined by nearly 23,000 jobs between 1947 and 1957 in the downtown. Utilities added about 1,000 during the decade.

The key to downtown job growth is in the office-using activities. Finance, insurance and real estate is projected to add 8,500 new workers for a 20-percent gain. Various business, personal, repair, educational and professional services are expected to add nearly 21,000 jobs to the previous 1957 total. Government -- another strong growth factor -- is projected approximately 20,000 higher. Only utilities, among the office-using group, is projected to decline by the 1,000 jobs

previously mentioned. These gains, totaling 48,350 in all, would offset the losses expected in other sectors, to produce a net downtown gain by 1975 of 25,000 jobs.

The sectors included as "office-users" -- finance, utilities, government and miscellaneous services -- include a broad variety of specific activities some of which are not office-oriented in their function. Analysis of past trends for these specific activities shows that the pattern of actual use is closely approximated in the totals given above. In addition, selected groups within the sectors excluded from the "office-users" are actually in the office market, even though not accounted here. Included would be specialized operations of manufacturing or wholesaling firms such as representational or buying offices for example.

> The projected trends for office-users, reflect the pattern already established in the 1947-57 decade. In this period -- despite sharp declines totaling 23,000 jobs among non-office-users -- finance, utilities and services exclusive of government, added nearly 9,000 jobs. This represented approximately 26 percent of the metropolitan gain in the same groups during the decade. The projected downtown job increases during 1957-75 for finance, utilities and private-sector services account for only a slightly larger proportion of metropolitan expansion in these groups.

Downtown projections of employment by industry group between 1957 and 1975 are shown in Table 12 on the following page.

Table 12. EMPLOYMENT PROJECTIONS BY MAJOR ACTIVITY, DOWNTOWN BOSTON, 1957-75

	Number of Employees 1957	Number of Employees 1975	Change 1957-75
Office-using Sectors:			
Finance	41,620	50,200	8,580
Utilities	21,000	20,000	-1,000
Government	40,105	60,000	19,895
Services & Miscellaneous	29,300	50,175	20,875
Sub-total	(132,025)	(180,375)	(48,350)
All Other Sectors:			
Manufacturing	26,540	17,000	-9,540
Wholesale & Retail	50,500	36,900	-13,600
Construction	2,725	2,725	-
Sub-total	(79,765)	(56,625)	(-23,140)
TOTAL	211,790	237,000	25,210

Supportable Space. New office space needs in the downtown can be calculated on the basis of the previously projected employment figures using an index of employee "density", that is a ratio of floor space in square feet required for each worker.

We have conservatively selected a density factor of 200 square feet per employee as most applicable to new space construction in Boston up to 1975. Indications are that the present Boston ratio is already somewhat higher -- approximately 220 -- based on the number of workers presently in privately-owned downtown buildings and their aggregate square footage. The outlook is for increases in space needs in the future. Because some of the present space is inefficiently used due to age and vacancy factors, a lower figure was used.

The current worker density picture on a national basis varies widely from city to city -- although there has been a strong overall trend in newer buildings to sharply increase the area alloted for each worker. The 1961 Building Owners and Managers Association survey of office structures less than 10 years old shows density of approximately 200 gross square feet. (On a net basis it is 156.5 feet.) In older structures, 10-25 years old the gross figure drops to about 175 feet; and for 25-40 year-old buildings, it is closer to 165 feet.

Individual cities range from a low of 100 feet in St. Louis to highs of approximately 215 feet in such locations as Washington, D.C.; Pittsburgh; Salt Lake; Duluth; and Cincinnati. A few exceptional cities such as Oakland, Milwaukee, Los Angeles and Long Beach report allocations in 250 square foot ranges.

Applying the 200-square foot density factor to the expected net job gain of 28,285 in finance, non-governmental services and utilities and to only one-sixth of the governmental services, a total of 6.25 million gross square feet of supportable space up to 1975 results. This would be space in privately-owned structures, and does not include public building space.

The projection conservatively assumes only one-in-six new government employees would be housed in added private space. The one-sixth, or 3,300 workers, would account for 600,000-plus square feet -- far less than government agencies presently occupy in private office buildings. The remaining five-sixths of the projected increase as calculated here, would be located in new or already-existing public buildings or would re-occupy area in private buildings equivalent to that vacated by other agencies.

> The 6.25 million square feet represents the supportable additions to the existing inventory based on potential new employment for the downtown. This figure is calculated for the 18 years, 1957-75. In the past five years, 1957-62, a total of 750,000 square feet have been built for the downtown market. The residual demand consequently would be for 5.5 million gross square feet. Indications are that current demand and supply are in reasonable balance and that downtown absorption on a net additional basis should run at an average of 425,000 gross square feet per year for the 13 remaining years up to 1975.

The indicated demand based on employment gains will be analyzed in terms of other factors in subsequent paragraphs. There are several conservative elements in the previous projection however, which deserve mention at this time. Although appropriate to this analysis, these elements could, in the long run, prove this a low projection. The conservative factors include the metropolitan and downtown employment projections for the office-using service sectors; the worker density gross allocation of 200 square feet per new worker; a one-sixth factor for added private space occupancy by new government workers; and no specific allowance for office demand from increasing space needs for existing downtown employees or from miscellaneous sources not included in the office-using employment sector.

Recent Market Trends

In recent years, the Central Boston market for new office space has been expanding sharply in relation to earlier trends. This is generally in line with national

real estate development patterns, although the Boston market has been somewhat unique in its delayed response to postwar opportunities. From 1930 up until the mid-Fifties there was virtually no new construction in the central section. During this entire period only the Liberty Mutual and John Hancock buildings were erected. These were of course dominantly single-occupancy structures. In the mid- to late-Fifties, the pace of activity began to pick up. During the past five years, between 1957 and 1962, a total of approximately 750,000 square feet in new office area have been completed and added to the inventory in seven key buildings. Some of these have been dominantly for single occupancies. Others have been oriented to the general market. All, according to our information, have been successful in their leasing program and currently maintain suitably high occupancy rates.

More recently, however, the scale of new office building and planning has burgeoned. By contrast to past and recent levels of activity, immense amounts of new space are presently under construction or are planned for development in the core area. In the following paragraphs the existing inventory and these new projects are specifically analyzed to establish the current supply-demand balance and recent downtown absorption rates.

Existing Inventory. Present estimates are that approximately 20-22 million gross square feet of privately-owned office space are located in the downtown area. The figure covers space in the Downtown GNRP including not only the downtown retail core but also the financial district, Chinatown, the South Station area along the Fort Point Channel, South Cove and Park Square as well as a portion of the close-in

Back Bay area. Types of space involved cover all grades, ages and quality, occupied and vacant areas measured in terms of gross square footage rather than net rentable. Typical occupancies would be banking, insurance, professional and business offices including wholesalers without inventory as well as administrative offices of manufacturers and independent office areas for retailing organizations. Government offices occupying space in privately-owned buildings are included in the total, but government-owned and occupied structures are excluded. All institutional offices and areas occupied by semi-public organizations -- charitable and fraternal groups, churches as well as public utilities -- are included.

> The key sources for the current inventory figure are the City of Boston Planning Board updated space use survey, the more recent preliminary space use survey conducted in the downtown area by BRA; and other reports prepared in connection with various BRA operations. We believe the 20-22 million square foot figure -- although not precise -- is the best and most coherent inventory figure available at the present time. Of course, the figures presently in use will under any circumstances be replaced by results of the more comprehensive survey soon to begin in connection with S&P operations for the downtown area.

Although limited in amount, completions within the last five years between 1957 and 1962 have, as mentioned previously, added a total of about 750,000 gross square feet to the inventory. These have been located in seven key buildings in various parts of the downtown and Back Bay. The buildings are as follows:

Office Building	Gross Square Footage
Traveler's Building	225,000
Blue Cross-Blue Shield Building	125,000
Liberty Mutual Insurance	225,000
IBM Building	70,000
McGraw-Hill Building	38,000
Remington Rand Building	36,000
White Fund	31,000
Total	750,000

Current Activity. In addition to recently completed and already existing space, substantial additional areas are in advanced planning stages, firmly committed or are now under construction. These buildings provide the most current measures of "supplier" activity and "consumer" response.

Potentially entering the market during the next three years and offering occupancies up to the end of 1965, are five major new properties in addition to scattered smaller developments -- under 100,000 square feet each -- in a variety of locations throughout the central area. Figures on approximate timing and net square footage proposed in these properties are tabulated below.

The data shown were developed through contacts with informed sources. They represent the best estimates now available and adequately serve the purposes of this analysis. Estimates on timing of possible occupancies are based on the normal pace of office planning, financing and construction. Dates shown do not account for possible major delays in the development sequence.

On the basis of current information, we can project the following office space offerings in Central Boston as likely to reach the market for occupancy by the end of 1965:

	Project	Probable Completion	Office Area (total sq.ft.)
1.	Prudential Tower	Early '64	1,000,000
2.	Traveler's Extension	Mid- '64	80,000
3.	British Properties	Early '65	800,000
4.	Government Center: A	Mid- '65	140,000
5.	Government Center: B	Late- '65	435,000
6.	Scattered Sites	Various	150,000 1/
		Total	2,605,000

1/ Taken at 5-plus percent of specifically projected space; a portion of this small-lot total is already firm.

Downtown Absorption. The preceding figures show that a total office area of about 2.6 million square feet in projected buildings can be expected to enter the market by 1965. This includes an allowance for 150,000 square feet of office area in scattered sites in the central area. The five specific projects shown are in various stages of development. The Prudential Tower, of course, is in advanced stages of construction. The British Properties and Traveler's Extension are farther behind and will probably reach the market six to twelve months later than the Prudential Building. In addition, two Government Center projects have been included.

Present leasing information shows that the floor area already committed by the end of 1962 in the projected buildings totals 1,375,000 net square feet or about 1,700,000 square feet on an equivalent gross basis. This represents nearly 55 percent of the total space anticipated by 1965 leaving a net available floor area in the projected structures of only 1,230,000 square feet.

> The pace of commitments for the projected space -- when added to the already completed 750,000 new and some 650,000 renovated square feet -- conservatively indicates an annual market for quality space averaging more than 600,000 square feet during the past five years. Considering new space alone, absorption has been at nearly the rate of 500,000 gross square feet per year. The 55-percent absorption for projected space, some of which will not be available for another three years, illustrates the strength of the present Boston office market and the acceptance of high quality, new space by key, pace-setting tenants in the core area.

The previously established projection for office space based on employment gains was for 5.5 million gross square feet in the 13-year period up to 1975. This represented an average demand of 425,000 square feet per year during the period. Based on the recent record of downtown absorption -- in the 500,000-600,000 range for new and renovated space -- the long-range projection should be readily attainable. Of course, the 425,000 projected square footage is an average figure. In individual years, actual performance may be higher or lower and still hold to the average in the long run.

Supply-Demand Balance Despite extensive market activity in recent years, available market indicators show that current supply and demand are in reasonable balance. Not only does absorption of new and renovated space appear to be continuing at high, even accelerating rates, but vacancies in the newest space are virtually non-existent and in the better-quality space are modest.

> It is estimated that approximately one-fourth of the total downtown inventory is in better-quality space -- including some buildings erected six and seven decades ago. The current vacancy ratio for the five to six million "better" square feet is indicated at approximately five percent. This figure is based on recent surveys conducted by the BRA, Building Owners and Managers Association of the Boston Real Estate Board, and the Real Estate Research Corporation in a sample of key buildings. Although the specific buildings covered in each of these surveys vary slightly, they all produce essentially the same results.

The occupancy in better-quality buildings is higher than the average for the downtown and substantially higher than in badly-maintained, poor-quality, walk-up and other obsolete buildings. In some of these, vacancy rates in certain sections of the downtown area may average 12 percent or more. The key index to current market is in the "effective" inventory of better buildings and in space potentially competitive with new offerings which might be placed on the market in the period to come.

The current vacancy picture, although encouraging, reflects only the pattern of completed offerings in new and renovated buildings up to the end of 1962. The approximately 1.7 million gross square feet of committed private space in buildings

now projected or under construction -- although part of the recent absorption rates for quality offices as measured by commitments and occupancies between 1957 and 1962 -- has yet to be felt in the current inventory. This point is discussed more specifically in subsequent paragraphs.

The downtown office market has a strong net growth potential adequate to support the expected supply additions. In addition, there has been and will continue to be a strong replacement market based on demolition and upgrading. New and renovated space expected during the coming years should total substantially more than the office area based on new employment growth alone. Office occupants displaced by demolition and conversions would require replacement space, generally at higher than a one-for-one ratio. Similarly, occupants in existing offices to remain are subject to expanding space requirements, even where the actual number of employees remains stationary. The operation of these replacement and "spread" factors would not only support space in the existing inventory but stimulate further office construction over and above the net additions projected here.

Suburban Trends. Detailed data on recent office developments in suburban Boston locations are not available at the present time. A number of conclusions regarding overall development patterns -- based on general data -- can be set forth however.

> During the postwar period, Boston and other central cities but the downtown in particular, have suffered from substantial disadvantages in attracting new office space construction. Already

mentioned, these disadvantages have included congestion, shortage of parking space, high land values and construction costs, difficulty in assembling sizable tracts and tax factors. Although the downtown offered many plusses, these were offset at least in part by some advantages available in outlying locations.

The current pace of office expansion in the Boston area is tremendous. Even in the relatively "slim" office building years for downtown, on a metropolitan level, activity was substantial. Between 1954 and mid-'61, $137.5 million of office construction was undertaken in Metropolitan Boston, according to U.S. Department of Commerce data. This was only slightly less than one-half the value of new work in Washington, D.C. and nearly one-eighth that in New York -- tops in the nation

Analysis of recent local building records indicates that the areawide rate of new office construction totals substantially more than 2.0 million square feet per year. In the past three years alone more than 50 major office projects -- each $300,000 or more in valuation -- have been authorized throughout the area. The downtown has accounted for less than one-fifth of the number of projects, value represented and square footage. The greatest portion of the new space is largely in scattered locations throughout the region and serves a variety of user types. Probably the largest single focus for new office space is in the Route 128 communities -- especially in the western sectors -- with a variety of industrial and technical enterprises occupying new space in laboratories and offices.

Much of the outlying office space which has been built recently is not downtown-oriented in terms of its physical requirements and its ties to related activities. Technical offices related closely to production line operations or drawing staff directly from the outlying residential areas as well as serving suburban markets in real estate, financial, medical and professional activities, are examples. Some of the outlying space however, was built as a result of such downtown office site and cost difficulties as outlined above.

> Urban renewal and other new programs focused on the central area for the first time in recent years are making space in the downtown available, assembled and ready-to-build on a reasonable and economic basis. The downtown, by means of these programs, can once again enter the continuing and extensive metropolitan office space market with locations which are truly competitive in contemporary terms. In so doing not only can the downtown "reclaim" its share of the area market, but it can also help to attract new firms to Boston locations -- firms which might not otherwise have considered the Boston area.

Growth Yardsticks

Three final -- and general -- yardsticks provide a broad basis for evaluation of the projected gains in downtown office space to 1975. These are population increases, independent projections undertaken by other sources, and building records elsewhere.

Population Gains. Between the base year of 1957 and 1975, metropolitan population is projected to gain more than 500,000 persons during the period. The square footage per capita in central office space to metropolitan population is close to 10. If this ratio continued during the period to come, a total gain of approximately five million square feet of office space would be indicated.

Although this method provides only a broad yardstick against which to test previously determined, more precise projections of space demand, the five-million square feet projected for the downtown area can be compared with the six million-plus square feet projected based on employment gains. The per capita constant does not take into account increasing space requirements for employees. This factor, perhaps more than any other, would account for the difference between the population-based projection and employment projections. In addition, however, economic shifts anticipated during the coming period -- from factory to office, for example -- can not be directly incorporated into a population-linked projection.

Other Estimates. Two other long-term estimates of central area office markets have been prepared. One was by the Planning Board and the other by Brown-Harris and Stevens in the Waterfront Project. Both are comparable to the 425,000 square foot per annum estimated here. The 1960 report on the Central Business District prepared by the Boston City Planning Board indicated a new office space demand for the central section totaling 8,000,000 square feet up to 1980. Five million of this total was based on net increments related to employment expansion expected in the downtown area. Another three million, or 60 percent of the net gain, was due to expansion requirements of existing occupancies based primarily on greater space requirements for each worker. On an annual basis this projection called for a downtown expansion of approximately 400,000 square feet.

In the Waterfront report prepared in January of 1962, estimates for an absorption of 3,200,000 net square feet within 10 years were submitted. On a gross basis, the figure would total approximately 4,000,000 square feet, or 400,000 per year.

> The key finding in our study -- as reported above -- was that the Boston market would support approximately 5,500,000 new square feet of high-quality office space in the central area up to 1975 -- an average annual absorption of 425,000 square feet.

The projected figures represent the potential for net additional office space, over and above already existing area and apart from replacement of space which might be demolished or converted to other uses during the period analyzed. Although substantial -- even in relation to completed central area construction during the past five years -- the figures represent a conservative "share" of the amount of new office space that will probably be built throughout the Boston Metropolitan Area during the next 13 or 15 years. In addition, the long-term downtown projections would involve average absorption rates lower than the 500,000-plus square foot levels of the past few years.

> Measured against the approximately 20-22,000,000 square feet of gross floor area in privately-owned offices in the downtown area at the present time, the additional 5,500,000 square feet represent a relatively modest increase -- approximately 25 percent. Comparing the recent rates of office expansion actually accomplished in two nearby metropolitan areas, the projected figures for Boston would appear reasonable. In Hartford, Connecticut -- one-fourth the size of Metropolitan Boston -- the Constitution Plaza renewal project alone added 1,000,000 square feet of new office space to the existing inventory of approximately 5,000,000 square feet. In addition to Constitution Plaza other new office space has been added elsewhere in the downtown. In New York -- although unique among U.S. cities -- the postwar construction boom in Manhattan has added nearly 70,000,000 new square feet of office space, more than doubling the inventory in the 15 years between 1947 and 1962.

Downtown Potential

In addition to the space already built since 1957, other office areas are firmly projected, in planning stages and committed in terms of public policy or already under construction. The total amount of this space is approximately 4.3 million square feet. Some of these were included in the previous tabulation of space expected to reach the market by 1965. These are duplicated here in the analysis of all space as yet not completed and occupied. The individual projects can be listed as follows:

Projects	Gross Square Footage (000,000)
Government Center: Private Only	1.7
Waterfront	0.3
Prudential Center	1.0
British Properties	0.8
Miscellaneous	0.5
Total	4.3

The net square footage remaining from the originally projected 6.25 million square feet to 1975 for downtown development totals approximately 1.25 million square feet. This figure is net of the 750,000 square feet completed since 1957 and the 4.2 million square feet committed, firmly programmed or presently under construction. This projected square footage for the downtown is derived on a basis of the overall market for downtown space over and above any replacement and excluding

any development specifically committed elsewhere. Even though the projected figures involved are substantial, they should be non-competitive.

Development Factors. Although physical design considerations and specific renewal policies would of course, dictate final location for the projected 1.25 million square feet of new office area for the downtown, three locations appear desirable at the present time. One would be in the financial district; another would be at the heart of the downtown retail core, presumably developed in relation to a unified, retail-office complex. A third location would be on the Boylston Street frontage, between Tremont and Charles. This latter location could possibly be effectively developed in conjunction with elevator apartment buildings along the same frontage. Specialized locations for specific needs would offer additional opportunities. An example would be the potential for a specialized medical and health service unit in the vicinity of the Tuft's New England Medical Center.

If only three buildings, each approximately equal in size were developed, an area of nearly 500,000 square feet per building would be indicated. Although a sizable building, a one-half million square foot facility would be substantially smaller than the projected British Properties Development and less than one-half the size of the Prudential Center main office building.

Staging is particularly critical in the case of the downtown office development. Although final timing should be set with specific reference to the pace of

specific offerings and current levels of absorption, preliminary indications are that the downtown offices could most appropriately reach the market in the late Sixties and early Seventies.

Part C. Residential Potential

The outlook in the Boston housing market is for strong demand in both metropolitan area and in central sections of the city. Dynamic factors in the housing market -- including net gains in area population; undoubling and reduction of densities; demolition; and replacement demand -- have created the basis for absorption of housing units at rates exceeding area population gains. The same factors which have supported past rapid gains in area housing can be expected to continue in the period to come. Against this background of an expanding overall market, the opportunities for new central area housing -- under suitable environmental conditions and with adequate neighborhood facilities -- are outstanding.

> In the following paragraphs recent metropolitan area developments in the housing field are analyzed in overall terms and by key sectors -- especially in relation to rental versus ownership patterns. These trends are reviewed over the decade-long period between 1950 and 1960 as well as on a year-by-year basis. Activity within key subareas of the metropolitan area are also established. Major factors influencing future housing market patterns in the metropolitan area are determined and their specific relationship to the downtown outlook for housing evaluated. Finally, firm projections for metropolitan and downtown housing markets are set forth.

Recent Trends

The actual expansion in the overall metropolitan area inventory between 1950 and 1960 -- the dates of the two most recent censuses of housing -- totaled 146,678 units. This represented a gain of 22 percent in the inventory total during the decade. Specifically in 1950, the total number of dwelling units in Metropolitan Boston was 667,412. By 1960, the metropolitan total increased to 814,090.

The total gain in inventory was based on increases in both occupied and vacant units. Of the total, approximately 85 percent, or 124,300 units were represented by occupancy increases. The remaining 22,000-plus were vacancy increases. In numerical terms, the number of vacant units slightly more than doubled, increasing from approximately 21,250 to 43,600 between 1950 and 1960.

> Among occupied units, the 1950 figure of 646,000 increased to 770,500 by 1960. In percentage terms this increase amounted to 19.2 -- more than twice the rate of gain for the metropolitan area population during the same period. The specific basis and implications of these variations are discussed in further detail in subsequent paragraphs.

Metropolitan housing patterns between 1950 and 1960 are summarized in Table 13 immediately following:

Table 13. OVERALL INVENTORY TRENDS, METROPOLITAN BOSTON, 1950-60

	Number of Units		Change 1950-60	
	1950	1960	Number	Percent
Occupied	646,156	770,468	124,312	19.2%
Vacant	21,256	43,622	22,366	105.2%
Total	667,412	814,090	146,678	22.0%

Occupancy Patterns. Of the total increase in occupied units for the metropolitan area, ownership gains represented the dominant share during the last decade. Nearly 115,000, or more than 90 percent of all occupancy gains were in this category.

in percentage terms, home ownership increased nearly 40 percentage points between 1950 and 1960. The 9,400-plus gain in the number of rented units -- an average of nearly 1,000 per year -- represented a 2.6 percent gain against the previous level in 1950.

Trends in occupancy for the metropolitan area between 1950 and 1960 -- expressed in terms of changes during the decade -- are shown in Table 14, immediately following:

Table 14. OCCUPANCY TRENDS, METROPOLITAN BOSTON, 1950-60

	Change 1950-60		Percent
	Number	Percent	Distribution
Ownership Units	114,884	39.9%	92.4%
Rental Units	9,428	2.6	7.6
Total Occupied Units	124,312	19.2%	100.0%

The sharp gains in ownership units for the Boston area were typical of patterns elsewhere in the United States during the same period. The decade's emphasis on single-family ownership units brought about a major shift in the area's inventory. In 1960, for the first time in the Boston area, more than one-half of all occupied units were in the ownership class. Specifically, in 1960 ownership units accounted for 52.3 percent of the total -- as against 44.5 percent ten years earlier. In rental units, offsetting downward shifts occurred. In 1950, more than 55 percent of area units were renter-occupied. By 1960, the proportion had dropped to 47.7 percent.

These patterns are recorded for 1950 and 1960 in Table 15, below;

Table 15. TENURE PATTERNS, METROPOLITAN BOSTON, 1950 AND 1960

	1950		1960	
	Number of Units	Percent	Number of Units	Percent
Ownership Units	287,861	44.5%	402,745	52.3%
Rental Units	358,295	55.5%	367,723	47.7%
Total Occupied Units	646,156	100.0%	770,468	100.0%

Quality and Vacancy Factors. Extensive housing market activities in Boston during the 1950-60 period resulted in a major quality upgrading of the housing inventory. Not only were substantial numbers of new units constructed, lifting "average" quality, but there were qualitative improvements even among existing units. Census data show that there were reductions in the number of dilapidated units actually occupied. At the same time however, there were offsetting increases in the number of dilapidated and seasonal units in the vacant classification.

> In numerical terms, there were approximately 9,000 less dilapidated units occupied by renters and owners in 1960 than there were in 1950. This reduction was offset by the increase of more than 8,300 vacant units which were dilapidated and seasonal. In total, the number of substandard units in the inventory in both years was approximately the same.

As previously noted, there were sizable gains in the number of vacant units in the area. In gross terms these gains produced an increasing vacancy rate in the housing inventory. In 1950 the "gross" vacancy rate -- the percent of all vacant units against total supply -- was 3.2 percent. By 1960, it reached 5.4 percent.

Discounting the available and effectively "unusable" vacant supply -- those units which were not for sale or for rent or were dilapidated or seasonal -- the vacancy increase was minor and, even in 1960, represented a small fraction of total inventory. The percentage of available, usable units in 1950 totaled one percent and in 1960, 2.4 percent.

Percentage vacancy data can be broken down according to rental and sale ratios by comparing vacant units to total units in each class, respectively. On this basis, the "for-sale" ratio increased only 0.2 percent between 1950 and 1960 -- from 0.8 percent to 1.0 percent. The increase for rental units was somewhat sharper, rising from 1.3 percent in 1950 to 4.0 percent in 1960.

These data are summarized in Table 16 below:

Table 16. VACANCY TRENDS, METROPOLITAN BOSTON, 1950 AND 1960

	Percent Vacant	
	1950	1960
Total		
Gross	3.2%	5.4%
Available	1.0%	2.4%
Classified		
For Sale	0.8%	1.0%
For Rent	1.3%	4.0%

Supply-Demand Balance. Although gross vacancy rates and the number of vacant units have increased in recent years as the result of upgrading housing supply, effective vacancies still remain low -- as seen above. At the same time, the job remaining to be

done in replacing substandard housing units in the metropolitan area is great. More than 14,000 units classified as dilapidated are still occupied by owners and renters in the metropolitan area. Another 17,000 housing units remain standing, although vacant, in the dilapidated and seasonal category. Together, these substandard units represent nearly 4 percent of the current inventory.

> Considering occupied units only, but accounting for those which are deteriorating as well as already dilapidated, a total of more than 85,000 units are current and potential problems. Measured against the occupied total, these represent more than 11 percent of the inventory. Although these data are for 1960, indications are that this same situation still holds true, three years later.

City of Boston Trends. Although the housing market patterns of primary interest to this study are at the metropolitan area level, housing trends within the city serve to further point up the relationship between population and housing gains previously mentioned. The total inventory of housing units in the City of Boston increased by 16,723 in the 1950-60 period. This represented a 7.5 percent inventory gain, despite the city's population decline of approximately 13 percent during the same period.

Much of the increase was in the form of vacant units, however. Of the 16,700 gain, approximately 6,600 was accounted for by an occupancy expansion and the remaining 10,000-plus units were in the vacant group. Other observations previously reported on the metropolitan vacancy pattern in relation to housing quality shifts, generally hold for the City of Boston as well.

The fact that there was any increase in occupancy for the city however, was the result of two principal factors -- decreasing size of average household within the city and some "undoubling" of households where single persons or married couples had previously lived in the same unit. The first factor -- decreasing household size -- was accelerated by the pattern of larger family moves from central city to suburban locations and their replacement by smaller household units. Again, this pattern was consistent with the general trends for central cities in metropolitan areas throughout the United States in the past decade.

Data on housing trends for the City of Boston between 1950 and 1960 are summarized in Table 17 below:

Table 17. HOUSING TRENDS, CITY OF BOSTON, 1950-60

	Number of Units		Change 1950-60	
	1950	1960	Number	Percent
Occupied Units:				
Ownership	54,266	61,291	7,025	12.9%
Rental	163,837	163,396	- 441	-0.3%
Total	(218,103)	(224,687)	(6,584)	(3.0%)
Vacant Units	3,976	14,115	10,139	255.0%
All Units	222,079	238,802	16,723	7.5%

Although the city trends in population, family relocation and housing market patterns reflects underlying forces which have been continuing in substantial measure up to the present time, they can be decelerated even if not reversed. If new and rehabilitated housing were made available at competitive prices in sound neighborhoods supported by adequate community facilities including schools, shopping, transportation and similar factors, the residential appeal and "livability" of the central city could

once again be re-established. This point is discussed more specifically in subsequent paragraphs.

Note on New Definitions. Between the 1950 and 1960 censuses -- from which the above data were drawn -- the metropolitan area boundaries were expanded and the definition of a "living unit" was changed. Both of these shifts tend to increase the magnitude of the inventory changes during the decade. The increases however, are not significant on an overall basis.

The extension of the metropolitan area boundaries took in 11 new towns in outlying locations. All but four of these were in Plymouth County on the Southshore. In 1950, no part of Plymouth was included in the metropolitan area. Sudbury in Middlesex County and Topsfield in Essex as well as Holbrook and Norfolk Town in Norfolk County were added to the Plymouth communities to make up the 1960 definition of the metropolitan area. These 11 towns in 1960 contained a population of only 76,000 persons. Even in terms of 1960 population, the difference due to the addition of these 11 communities in the metropolitan total was only 3 percent.

The second factor which changed between the two censuses was the definition of a living unit. In the earlier census, separate living quarters which consisted of one room without cooking equipment were classified as a dwelling unit only when they were located in a regular apartment house or when the room constituted the only living quarters in the structure. However, in the later census, all separate living quarters which consisted of one room with or without separate cooking equipment, were classified as housing

units as long as the room had direct access. No account was taken of whether the unit was in an apartment house, rooming house or a house converted to apartment use. Consequently, the housing unit concept in 1960 Census resulted in the expansion of the inventory.

According to the Census Bureau, however, the evidence thus far suggests that the use of the dwelling unit concept of earlier surveys instead of the housing unit concept now in use had "relatively little effect on the counts for large areas .... Any effect which the change in concept may have on comparability can be expected to be greatest in statistics for certain Census tracts and blocks ...."

> A special analysis, developed as of December 1959 and available as part of the Decennial Census of Housing utilized consistent definitions of metropolitan boundaries and dwelling unit concepts for both 1950 and 1959. This special analysis supports the conclusions set forth in the previous paragraphs. In addition, the special 1959 analysis provides key insights into underlying factors in the area housing market. These factors are reviewed in more specific detail immediately below.

Components of Inventory Change

Analyses of specific changes in the housing inventory by cause between 1950 and 1960 reveal the character as well as extent of Boston housing market shifts in recent years. The adjusted data for Metropolitan Boston reviewed below, although different in both 1950 and 1959 from that previously analyzed, shows similar trends.

Between 1950 and 1959, a total of 153,500 units were added to the inventory from various sources. Against a starting supply in April 1950 of 687,843, this represented an

increase of 22.3 percent. The unadjusted data analyzed previously, showed a 1950-60 gain of 22 percent and 146,700 units. The gross 1950-59 additions less removals from the 1950 starting inventory resulted in a net December 1959 inventory of 722,404 units -- as shown in this special Census survey.

Data on inventory changes by components for Metropolitan Boston -- standardized to the 1959 definition -- are shown in the following table.

Table 18. INVENTORY CHANGES BY COMPONENT, METROPOLITAN BOSTON, 1950-59

	Number	Percent of Total 1950	Percent of Total 1959
April 1950 Units	687,843	100.0%	89.1%
Units Removed 1950-59:			
Demolition	-13,606	- 2.0%	- 1.8%
Conversion	-15,686	- 2.3	- 2.0
Merger	-17,290	- 2.5	- 2.3
Other Means 1/	-22,354	- 3.2	- 2.9
Total Removed	(-68,936)	(-10.0%)	(- 9.0%)
Remaining 1950 Units	618,907	90.0%	80.1%
Units Added 1950-59:			
New Construction	103,123	15.0%	13.4%
Conversion	34,878	5.0	4.5
Merger	8,077	1.2	1.0
Other Sources 2/	7,419	1.1	1.0
Total Added	(153,497)	(22.3%)	(19.9%)
December 1959 Units	772,404	112.3%	100.0%

1/ Losses due to shifts to non-residential use; "unfit" condition, fire, flood and collapse; and changes to rooming units.

2/ Additions due to shift from non-residential space and changes from earlier rooming units.

As can be seen in the preceding table, 10 percent of the 1950 supply was removed from the inventory between 1950 and 1959. The largest single group of units was lost by a variety of means including shift to non-residential use; destruction by fire, flood, collapse and other causes; deterioration to the extent of becoming unfit for human habitation; and adaptation of former dwelling units to sleeping rooms or lodging facilities. A total depletion of 22,354 units was accounted for by these causes.

More than 17,000 units were lost by merger, that is they were combined with other small units to make larger units. Nearly 15,700 units were involved in conversions which resulted in their loss to the inventory. Finally, a total of 13,600 units -- two percent of the 1950 supply -- were demolished during the course of the decade.

> The net number of units remaining the "same" in 1959 -- discounting those removed during the period -- totaled 618, 907. This represented 90 percent of the starting inventory in 1950.

Of the units added between 1950 and 1959, new construction accounted for the largest share by far. More than 103,000 newly-constructed units -- roughly 10,000 per year -- were accounted for in the 1959 supply. This factor alone represented a 15-percent expansion in the 1950 supply. Another 34,900 units, or five percent, were added in the form of newly-converted units. Newly-merged units -- combined from smaller units -- added another 1.2 percent or 8,100 units. Miscellaneous sources accounted for a final 7,400 units. These were primarily drawn from units not previously classified as dwelling quarters, for example a former rooming house or sleeping room facility con-

verted to a one-room dwelling unit; units created from such non-residential space as a store or garage; or units moved to a site in the area during the study period.

> The 153,500 units added to the inventory in Metropolitan Boston represent the market for total new supply in the area during the 1950-59 period. On an annual basis, the average increment to the area inventory was more than 15,300 units per year. Approximately two-thirds of this total were in the form of newly-constructed units with the remaining portion in newly-converted and merged units as well as miscellaneous sources.

Building Permits. Building permit records available for the City of Boston as well as the remaining parts of the metropolitan area, show the pattern of annual fluctuations in area building activity during the decade. In addition, they provide verification for the new construction total shown in the dwelling unit inventory previously discussed.

For the years 1950 through 1959, a total of 110,480 dwelling units were authorized in the metropolitan area. These figures are for complete years including all of 1950. If the first three months of 1950 were excluded -- for comparability to the 1950-59 data discussed above -- approximately 107,000 permits were issued. This can be compared with the 103,000-plus units in new construction reported in the Census tabulation -- an unusually high correlation for this type of data. Indications are consequently, that not only are all jurisdictions within the metropolitan area issuing permits but also that the degree of coverage in each jurisdiction is high.

The pattern of permit activity in the Boston area generally followed business cycle developments during the past decade. Highs were in the early part of the decade -- 1950 and 1951. There was a consistent drop to a trough in 1954 with a slight recovery in 1955 followed by another turn-down to the decade low in 1957. Since that time, there has been a steady increase. Actually the trend established in 1957, 1958 and 1959 has continued through 1962 with indications that the peak in the early part of the last decade will be achieved again in the near future.

The pattern followed in Boston is not unlike other cities throughout the nation, with activity levels between low and high points at a ratio of 2-to-1. The patterns within metropolitan subareas approximated those for the total region. The "split" between the city and the remainder of the metropolitan area generally reflected the pattern of household movements as well as the availability of building sites.

Table 19, below, summarizes dwelling unit permit data for the city and metropolitan area between 1950 and 1959:

Table 19. DWELLING UNITS AUTHORIZED 1/ BY BUILDING PERMITS, BOSTON AREA, 1950-1960

Year	Boston City	Remainder of Area	Total Boston Area
1950	2,353	12,761	15,114
1951	3,686	10,294	13,980
1952	1,390	10,179	11,569
1953	1,273	10,390	11,663
1954	647	10,023	10,670
1955	844	10,673	11,517
1956	575	9,292	9,867
1957	396	7,044	7,440
1958	599	8,108	8,707
1959	604	9,349	9,953
Decade Total	12,367	98,113	110,480
Annual Average	1,237	9,811	11,048

1/ Includes private and public units.

Metropolitan Housing Outlook

The basic forces which gave shape to the metropolitan area housing market during the 1950-60 period are expected to continue during the coming years. Population, which for the last decade showed a 7.4 percent gain, should increase at approximately the same rate during the 1960-70 period. Projections into the 1970-80 decade show

sharp increases in the rate of population gains however, especially during the first half of the decade. The pressures of population growth, fundamental in creating the net demand for additional units can definitely be expected to sustain past overall rates of housing inventory gains.

Although it is difficult -- and unnecessary for the purposes of this analysis -- to project specific components of inventory change which might take place during the coming years, the general outlines of future housing market shifts can be set forth with reasonable certainty at this point. Rates of demolition can be expected to continue at high rates. Highway program activities will probably accelerate inventory removals -- especially as the projected interstate radials penetrate the core area of the region, cutting through intensively developed residential sections.

Housing code enforcement, public improvements of various types and urban renewal -- even if less "clearance" oriented -- will also continue to create losses in the existing inventory. As in the past, these losses can be expected to cluster at the lower-quality end of the scale. Fire and collapse, adaptation of existing residential structures to other uses; deterioration and new, "unfit" dwellings will also take their toll. Changing tastes, continuing obsolescence, residential deterioration and increases in personal income levels will all continue to create strong demand for new and improved residential units. As new displacements and gains in demand emerge, markets will be generated as they have been in the past not only for new construction, but also mergers, newly-converted units and additions to the inventory from other sources.

> Based on population growth demands, indicated demolition and other removals from existing inventory, we conservatively project an average addition to the metropolitan housing inventory of 15,000 units per year for the coming 15 years. This number of gross additions should, we believe, be readily absorbed into the metropolitan area market. This is a lower average rate than was actually recorded during the past decade and one which should prove particularly conservative during the expected rapid growth years in the beginning Seventies.

Multi-Family Units. Multi-family and rental units are of particular interest to this analysis from the standpoint of downtown residential potential. On a metropolitan area basis activities during the past decade as already pointed out have been in favor of single-family and ownership units. Unadjusted inventory trends show that approximately 8 percent of all newly-occupied units between 1950 and 1960 were rented. The adjusted figures for units added by components to the inventory show stronger trends in favor of rental occupancies. Of the newly-constructed units added to the inventory, nearly 17 percent were renter-occupied. This figure increases to 18 percent if only those units which were actually occupied are included. Of those units added to the inventory from other sources, virtually all were renter-occupied. More than two-thirds of units changed by conversion and approximately one in five of the newly-merged units were rented.

The Boston area, and especially the City of Boston, has remained a strong rental community. In 1960, approximately 48 percent of all occupied units were rented, well above the national average. Although the 1960 figure showed a drop from the 1950

level, when more than 55 percent of area units were renter-occupied, a relatively stable total number of renters were in the Boston market for both years. The renter figure for 1960 included more than 367,000 households.

> In more recent years, apartments have been accounting for an increasing "share" of total starts in the area. This pattern is, of course, in line with the phenomenal national increase in construction, consumer demand and acceptance of multi-family rental accommodations in contrast to the Fifties. In 1960 for example, nearly 1,700 units were built in structures of five or more units against a total private count of 9,711 units. This represented 17.4 percent of all private authorizations during that year. In 1961, the percentage more than doubled with 4,276 multi-family units in a total of 11,258 -- 38 percent of all permits. The trend for 1962, continuing from the two earlier years, shows nearly 50 percent of all units in the five-plus structure category.

These data are summarized in Table 20, below:

Table 20. DWELLING UNIT AUTHORIZATIONS BY TYPE OF UNIT, METROPOLITAN BOSTON: 1960, 1961 AND 1962

	1960	1961	1962	Three-Year Total
A. Number of Units:				
Private Units:				
1-Family	7,520	6,561	5,900	19,981
2-4 Family	493	421	733	1,647
5 or more Family	1,698	4,276	5,974	11,948
Total	9,711	11,258	12,607	33,576
Public Units	361	661	450	1,472
All Units	10,072	11,919	13,057	35,048
B. Percent Distribution of Private Units By Type:				
1-Family	77.5%	58.3%	46.8%	59.1%
2-4 Family	5.1	3.7	5.8	4.9
5 or more Family	17.4	38.0	47.4	36.0
Total	100.0%	100.0%	100.0%	100.0%

Based on trends established during the past decade as well as in more recent years, we conservatively project the metropolitan area multi-family market at 2,000 units per year -- slightly more than 13 percent, on the average, of the 15,000 unit overall market previously projected. In individual years, this percentage can be expected to increase and decrease from the average even in a relatively stable total area market. This has been the case in 1960, 1961 and 1962, when the 2,000-unit figure and the 13 percent were substantially exceeded even considering newly-authorized units alone and apart from the heavy renter-oriented additions from other sources. These high percentages are not expected however to hold on a sustained basis throughout the next 15 years. The 13 percent overall average during the coming period should be readily absorbed into the Boston market by the anticipated rental demand, however.

Downtown Housing Market

The central area of Boston has not provided a major market for new housing in many years. On the contrary, there has been a general "flight to the suburbs" accompanied by population decline in the central city and the central sections of Boston. Barely offsetting this population decline in housing terms has been a rapid decrease in the average size of household which, coupled with increasing vacancy rates, has sustained a small market for new construction and other inventory additions throughout recent years.

> Two fundamental factors have operated at root in the decline in Boston's housing market. These are the gradual deterioration of housing and neighborhood conditions as well as the lack of new suitable sites in sound neighborhoods for the development

of sizable new residential offerings. These patterns are of course changing with the introduction of urban renewal and, as will be discussed in further detail below, new residential units meeting general standards of contemporary residential development have recently been coming onto the market in Central Boston. A number of other key factors also support the close-in housing market creating a strong, "inherent" demand for new housing units. These underlying forces have created the basis for successful recent offerings and provide some insight into the potential for the central area residential redevelopment. These points are discussed in further detail in the paragraphs which follow.

Main Supports. Three key factors need to be considered in projecting the underlying demand for potential new multi-family offerings in the downtown area. These are as follows:

1. Specialized Markets. Perhaps the strongest single basis for close-in living is the walk-to-work market. The Downtown work force at the present time totals more than 200,000. Nearly 21 percent of the metropolitan area work force is currently located in the downtown making Boston one of the more highly centralized cities in the U.S. In addition, the present downtown work force can be expected to expand by 25,000 workers during the next 15 years, with another 10,000-plus new workers in the adjacent close-in sections.

   Rental-oriented households are strongly represented in the downtown work force. Typical of this group are white-collar workers and junior executives many of whom attach major importance to convenience and prestige. This would be true for single persons, as well as younger and older couples without children.

   Even apart from members of the downtown work force, two additional sources provide important potential for the close-in rental market. These are retirees seeking the convenience and varied activities available in the downtown; and business organizations seeking to provide accommodations for visiting personnel staying in the area for a short time as well as newly-arriving employees

moving into the area for the first time. It is not unusual for major business corporations to "master-lease" a large number of units for these purposes in preference to hotel or other types of accommodations for such employees.

2. Recent Offerings. In recent years a number of new offerings have come onto the downtown market. Although these have been relatively small in number of units by contrast to potential demand -- and they have been oriented primarily to upper-income groups -- they provide insights into the potential for new downtown residential development. Two examples, both rapidly leased-up according to our information, are the 330 Beacon Street development and Charles River Park in the West End redevelopment area. The Beacon Street project is a luxury apartment on the waterside of Beacon Street in a Back Bay location overlooking the Charles River. It is a luxury development containing a total of 72 units. Some of these are duplexes. All provide special luxury features. Rents in standard units range up to $750 per month.

Charles River Park, a large offering, provided approximately 500 units in two major elevator structures together with a small number of town house rental units. Our information is that approximately three-fourths of all units were leased prior to the completion of model apartments. The Charles River Park development is expected to continue, using the remaining portion of the ground made available under the West End Redevelopment Project and will ultimately contain a total of approximately 2,400 units.

Analysis of these two examples, as well as other comparable offerings in the downtown and close-in areas, indicate the potential response to subsequent development. The strength of the market for these two particular projects can be attributed in part to past "under-supply" in new downtown apartments. The more fundamental factors however -- pointed out in the preceding paragraphs -- have provided the major impetus for rental success.

3. Suitable Environment. The key factor in converting potential demand in downtown and close-in areas to actual rentals or sales is the creation of suitable residential environment and suitable units to meet specialized needs of this market. Inherent demand factors are strong. If impediments to development can be eliminated and imaginative, appropriately priced and well-located buildings are placed on the market, the latent demand should be realized.

Specifically, we believe that close-in Boston can provide suitable locations and compete effectively for a 20-percent share of all apartments projected for the metropolitan area during the coming years. On an average basis, this would mean approximately 400 apartments per year. This figure, of course, covers all apartment types, all locations within the central area and rental levels. In individual years, the figure can be expected to be higher or lower than the average. Over a 15-year period, however, a conservatively projected absorption of 6,000 units in the central area can definitely be expected.

> The proportion of the total area market which can be accommodated in the central area is at least in part, a function of public policy. Elements in that policy would include the amount of ground area made available for new development, the price at which ground would be made available to private developers under an urban renewal type of operation, and the efforts placed behind other specialized types of activities including FHA programs.
>
> In addition and of key importance, the degree to which public commitments were made to create residential amenities appealing to a broader market, would also control the final downtown market potential. Specifically, if low-density, family-oriented accommodations were made available with appropriate support in new schools, playgrounds and similar facilities, the figures projected above could be expected to expand substantially. Although the residential potential for close-in areas is virtually unlimited in this sense, especially in comparison to past levels of activity, a reasonable high-range figure in contrast to the conservative 6,000 already set forth might be 9,000 units. On an average basis, this would be 600 units per year or about 30 percent of the area-wide rental market. The development of sale units in the downtown could even further expand this figure.

Programmed Development. Approximately 5,000 units have already been committed to other projects within the central area. Most prominent among these are the 3,200 units projected for the Waterfront development and 2,400 units projected in the Charles River Park extensions of the Westend Urban Renewal area. Another 400 units, we understand, are committed to miscellaneous programs including the White Fund development.

> Taking the "residual" uncommitted potential only, a minimum of 1,000 additional residential units would appear to be supportable in the downtown area during the coming 15 years. This figure is conservative as already indicated and could be expanded by another 3,000 units depending on public policy and private activities in other parts of the central area. Conversely, activities elsewhere notwithstanding, the housing market opportunities downtown are unique and the projected minimum figure should be readily attainable.

Development Guidelines. The greatest part of the projected expansion in the downtown inventory would be in newly-constructed units. However, conversions, merger and other sources as previously mentioned can also be expected to make contributions to the expanding downtown inventory. Typical for example, would be the type of unit offered in the recently-converted Hotel Bellevue. Other instances of this type can be expected during the coming years.

A major share of new offerings should be oriented to the middle and upper-middle income brackets with rents ranging generally in the $100.00-$195.00 per month category for units up to three bedrooms. Offerings in the lower-middle and lower income categories, as previously mentioned, are matter of public policy and would represent the greatest potential expansion factor in the downtown market.

In terms of unit types, multi-family elevator structures are generally projected. Although low-rise structures, row houses, maisonettes and town house units, even garden apartments might be included for variation in design features as well as added open space, light and air, these types would probably represent only a small proportion of the total units involved in the Downtown development.

In locational terms, a number of key opportunities are available for new residential development in the downtown. Perhaps most prominent among these is the location on Boylston and Tremont Street facing the Boston Garden and Common. This location would be particularly desirable for elevator structures oriented to upper-middle and upper income groups. Special opportunities would be available in such advantageous residential locations as the South Cove and Chinatown areas. The traditionally strong identification of specialized market groups with these areas, would give them "built-in" consumer acceptance. The Bay Village rehabilitation efforts already indicate the potential for these areas. These would be particularly suited for less expensive, lower-density and family-oriented units, town houses and other low-rise structures.

In the Tufts-NewEngland Medical Center a unique market is generated by the hospital facilities. This would include not only the relatively high-income professional personnel but also the middle and lower-income groups employed at the Medical Center in a variety of jobs as well as students matriculating at the center. Specialized offerings meeting the needs of these groups in the Medical Center area could also be developed.

Part D. Transient Accommodations

The potential for new downtown transient units in Boston is strong. On the one hand, the Boston market has been generating a sizable transient demand and supporting an extensive complement of hotel and motel facilities throughout the metropolitan area. Much of this demand has focused and will continue to focus on the downtown. The supply of existing units on the other hand -- in the metropolitan area as well as downtown -- is becoming obsolete in functional and locational terms. Despite inadequacies in the inventory, even at the present time, area motels and hotels are reporting occupancy levels above the national average.

> Looking ahead, the outlook is for further growth in demand, especially at the core area. This growth will be supported by expansion in several key markets. The construction of new facilities would not only serve to meet growing demand and reduce gaps in present supply but also to enhance Boston's competitive position vis-a-vis other cities, especially for conventions and meeting activities. We definitely recommend that sites for additional transient units be incorporated into the GNRP plan as desirable and supportable for the downtown as well as for the city as a whole.

Key demand and supply factors operating in the transient market are set forth in the paragraphs which follow, together with specific recommendations on the scale and character of recommended new units.

Demand Factors

The Boston area -- central in New England -- is positioned to tap one of the nation's major travel flows. Already the key destination in the New England region for business and

pleasure travelers, markets supporting Boston's travel-serving businesses face major growth prospects in the coming years.

> Movements at Logan International Airport perhaps serve to summarize the present scale of Boston travel activities relative to other locations as well as any single relatively available index. In 1961, Logan reported a total of more than 1.5 million enplaned passengers. On a national scale, this placed Logan in a group of 15 U.S. hubs with at least one million passengers. It was exceeded only by such giants as New York, Chicago and Los Angeles, followed closely behind the specialized regional interchange points such as Atlanta, Dallas and Miami; and ran well ahead of Philadelphia and Detroit, both larger in population terms.

The scale of Boston's population and economy alone is the basis for a major portion of its heavy visitor traffic. With more than 2,500,000 residents at present, Boston is seventh-largest among U.S. metropolitan centers. The 1,000,000-plus jobs in the area cover a diversified set of activities ranging from manufacturing, distribution and retail trade to government, education, cultural and religious organizations -- all of which generate a high degree of personnel movement and interchange. In the future, continued growth is expected to carry the area's population to more than 3,000,000 persons by 1975 and a job total approaching 1,500,000.

More specifically, three key travel markets provide the basis for Boston's hotel and motel industry. These markets -- commercial travel; conventions and meetings; and tourism -- are discussed in further detail in the following paragraphs as they relate to the areawide market for transient accommodations and its specific focus in Downtown Boston.

Business Travelers. Seven key generators create the mainstream of business travel in the Boston area. Of course, many of these same generators stimulate tourist and other personal trips as well as providing "selling points" for Boston as a convention center. However, the individual factors with regard to these other two types of markets are discussed separately in a subsequent section.

The business travel factors are as follows:

1. Government Activities. These would include the city, county, state and Federal governments. Government agencies at all levels now employ a total of approximately 150,000 persons. More than 45,000 are in Federal Government civilian jobs in scores of agencies. State Government headquarters are located in this capital city and generate trips to the legislature, the State courts as well as to the executive, regulatory and administrative agencies housed in the Boston area. City and county governments also generate some business travel, although to a lesser extent than State or Federal.

2. Finance and Insurance Headquarters. Boston is one of the nation's traditional centers of finance. The First Federal Reserve District banking facilities are headquartered in Boston and serve the six-state New England region. Many of the nation's oldest and strongest banks are situated here, funding not only local and regional business operations, but also serving a national market. Virtually all of the nation's top securities houses are represented in the local area. Some of the nation's largest insurance carriers have major offices in Boston -- John Hancock, New England Mutual, Liberty Mutual, Prudential, Hartford Insurance Group, to mention a few.

3. Processing and Manufacturing. Suppliers and buyers as well as employees from branch plants located in other parts of the nation visit the estimated 5,700 manufacturing establishments operating in the Boston area at the present time. Although more decentralized with respect to the close-in area than other types of business-travel generators, an estimated 2,400 manufacturing establishments are presently located within the City of Boston. Visitors to these in-city plants would be particularly attracted to the downtown area as a convenient stopover point.

4. Marketing Functions: Including wholesale as well as retail activities, the multi-billion dollar distribution function in the Boston area generates extensive business travel. Although some decentralization has taken place, major regional buying facilities are still focused in the core area of the region.

5. Educational and Religious Centers: One of the nation's top centers of higher education, Boston has more than two-score schools and colleges. Many of these draw visitors from all parts of the world as well as the nation. Among the outstanding facilities located in and near the downtown are the Tuft's Medical and Dental School, Northeastern University, MIT, Boston University and the New England Conservatory of Music. Also close by in the Back Bay, Fenway and Cambridge sections are Harvard University and its Medical School, Radcliffe, Simmons, The Massachusetts College of Art, and many others.

Perhaps the principal area church from the standpoint of generating visitor traffic is the First Church of Christ, Scientist which includes not only the Mother Church, but also national headquarters and publishing operations. Major state and regional facilities for Catholic and Protestant church groups are also located in the area and generate a substantial volume of travel.

6. Medical Center. Renowned for its specialized medical facilities and outstanding professional people in the medical and health service field, Boston is home to hospitals and medical schools drawing visitors, patients and students from all parts of the nation and the world. Area hospitals provide an estimated 7,000 beds at present. Among the large ones are the Mass General Hospital, Peter Bent Brigham, New England Deaconess, Beth Israel, Boston City, Childrens, St. Elizabeth, VA and U.S. Public Health Service hospitals.

7. Legal and Other Professional Services. The combination of outstanding educational and cultural facilities, attractive living environment and professional opportunities have made Boston a center for scientific, engineering, legal and medical professionals. According to the National Register of Scientific and Technical Personnel maintained by the National Science Foundation, Boston ranks fifth among the nation's metropolitan areas in the number of residents with these specialized skills. Only New York, Los Angeles, Washington and Chicago are ahead. The organizations employing these professionals serve other parts of the nation as well as overseas locations. They attract visitors to the area and send personnel to a similarly wide group of locations. One large Boston area research firm, as an illustration, which has a particularly wide geographic coverage in its business activities, is reported to be the largest single customer for one of the nation's top airlines.

Convention Activities. Boston is well established as a major convention center. In recent years, typical attendance has been running in the 170,000-plus range annually with the total number of conventions averaging in the mid-200's.

The convention and meeting market has been growing rapidly in recent years, based on increased levels of economic activity as well as an increasing number of organizations meeting more frequently. Boston in the past, has been severely limited in the scale of conventions it could attract. Key inhibiting factors have been in the types of meeting facilities available and the number of first-class hotel rooms which could be committed to convention delegates.

> The availability for the first time, in approximately two to three years, of the new city auditorium and exhibition hall will provide a real breakthrough on meeting and exhibition facilities. The 6,000-seat auditorium, containing approximately 120,000 square feet of exhibition space and meeting rooms in addition, will make the city suitable for substantially larger conventions. Although the Boston Garden with approximately 13,900 seats has been available as an indoor facility for many years, it is not air-conditioned nor is it well suited for a variety of usual convention functions.

The potential availability of the new auditorium has already improved Boston's competitive position in the national market. Meetings and conventions are now being signed up for 1964, early 1965 and to a limited extent, for later years. In negotiating with involved organizations for these dates the new auditorium has, we understand, been a major factor. Indications definitely are that the new auditorium will substantially expand the convention market for the City of Boston.

The second major limitation has been on the hotel supply side, especially in the central area and in the vicinity of the auditorium. Of course, the proposed Hotel America, which will contain approximately 1,000 rooms, is to be immediately adjacent to the convention center. However, the auditorium and exhibition hall provides capacity to attract conventions drawing nearly 10,000 delegates each.

Typical sleeping room requirements for such top conventions are in the 5,000-unit range. At the present time -- including the new Hotel America -- a total of only 4,000 sleeping rooms can be pledged to conventions proposing Boston meetings. This figure includes facilities for motor hotels, some of which are farther out than desirable from the standpoint of convention delegates. Even though the total number of rooms situated in the downtown and elsewhere in the metropolitan area is substantially larger than the 4,000 available, some are disqualified by reason of location, others by reason of quality and still others by competing markets. For example, the Statler with a total of 1,350 rooms will commit only 800 to conventions. In the Prudential Center's Hotel America only 600 of the projected 1,000 rooms would be committed.

> Based on the outlook for substantial expansion in Boston's convention market, there is a shortage of first-class, downtown hotel and motel accommodations. Of course, the major conventions alone cannot serve to completely support additional rooms, although they provide important "bread-and-butter" business. The greatest portion of all meetings in the Boston area are small -- involving delegates numbering in the low hundreds. A motor hotel or hotel of limited size with appropriate meeting facilities could readily accommodate this type of operation to supplement overflow crowds from the giant conventions. In addition of course, the markets suggested above in the business-traveler category as well as tourist markets as discussed below, would provide major support.

Tourism and Other Personal Trips. Tourism is a one billion dollar industry in the New England area at the present time, according to reports from the Federal Reserve Bank of Boston. In Massachusetts it is ranked as one of the top industries. In both cases, the City of Boston figures as a key tourist destination.

> Nationally as well as in New England, tourist and pleasure travel has been growing sharply. Basic to these trends have been increased leisure time, greater personal mobility with increasing auto ownership, and advancing income levels. Continued strength in these factors can be expected to support additional gains in the future.

Even apart from the factors already mentioned which serve to attract business and convention delegates to the area, Boston is well-represented in a broad variety of activities, functions and events which generate extensive tourist and personal travel to the area. Some of these are discussed more specifically in the following list:

1. Sports Events. The Boston area has a complete year-round series of activities in sports. It is one of the few areas in the U.S. which provides professional competition in four types of sports -- baseball, hockey, basketball and football. In addition to the professional activities, the intensive concentration of colleges in the area provides major magnets for fans of inter-collegiate sports. Many of the major facilities where these events occur are located in or near the core of the region. These include the Boston Arena in Back Bay, Boston University Football Field, Harvard Stadium, Fenway Park and the Boston Garden. In addition, proposals are currently under consideration to locate the new Boston Coliseum and Stadium in the South Cove area near Fort Point Channel.

2. Shopping Facilities. Area merchants refer to Boston as "New England's Shopping Center". With more than $3.25 billion in retail sales, Metropolitan Boston is by far the largest retail shopping center in the region. Many travelers come to the area, particularly to the downtown, to take advantage of the largest presentation and concentration of merchandise available in the six-state area.

3. Historic Attractions. The Colonial and Revolutionary War background of the Boston area is a national drawing card. In the downtown, the Freedom Trail grouping including the Old South Meeting House, the Boston Massacre Site, Faneuil Hall, the Paul Revere House, Old North Church, the wharf location of the Boston Tea Party, Bunker Hill Monument and other well-known facilities are major tourist objectives. the downtown renewal plan proposes to knit key elements among Boston's historic sites together even more tightly in an "Old Boston Center" complex. Underpinned by a proposed visitor and tourist center located in the downtown area, this could be a major attraction and in itself provide important support for projected new transient accommodations in the downtown area.

4. Cultural Facilities. A major "try-out" stopover on the theatre circuit, Boston has a number of important legitimate theatres. In addition, shows, spectacles, and other theatrical presentations are important draws for outside visitors. The Boston Symphony, the New England Opera Company and other music and performing arts organizations are active in the area. Nationally-known museums with extensive and specialized attractions are also available. Concentrated on the Fenway and close to the downtown area, the Museum of Science, the Museum of Fine Arts, Gardner Museum and others generate substantial and frequent travel activity for Boston.

5. Restaurants, Night Clubs, Eating and Drinking Places. There are presently more than 2,900 eating places in Metropolitan Boston and at least 1,200 drinking places -- the largest concentration in the New England area. The downtown, with more than one in ten of the area's total of such establishments, has major representation in this field. These restaurants, clubs and lounges not only serve existing downtown hotels,and their guests as well as regular downtown patrons, but also draw other visitors to the area from outside. Proposals to strengthen and extend these facilities in the downtown area as part of the renewal plan are being incorporated into GNRP proposals. These would serve to further enhance such attractions for the downtown area.

6. Personal Visits. Occupants of relatively small, close-in apartments require "extra bedrooms" in the form of transient accommodations to house periodic visitors. Downtown and other close-in accommodations derive part of their occupancy from this source at the present time. Projected construction of extensive new apartments in the downtown would provide an even greater base for this type of demand.

Note On Interstate Highways. The partially complete interstate network has already created an entirely different pattern with respect to downtown access. After completion, for the first time in recent years, the opportunity to move directly into the center of the region on high-capacity, high-speed freeway facilities from all directions will be available. Penetrating from the west will be the Massachusetts Turnpike extension and from the north and south, I-95 and I-93, and the Southeast Freeway. Under these conditions, the marginal advantages of peripheral area overnight stopovers will increasingly be weighed by the tourist against advantages in downtown variety and related attractions.

> As a result of these new freeway facilities, the downtown will be once again accessible to major through-traveler tourist markets-- some 90 percent of which are motorists. At the same time, easier downtown accessibility should also serve to expand other markets -- including the motoring commercial traveler.

Apart from highways, other key inter-regional transportation facilities focus on the downtown area. Logan field -- minutes away from the downtown -- is one of the closest to the central business area among major U.S. airports. The recent completion of the Callahan Tunnel improves the carrying capacity of downtown-airport routes. Inter-city bus and rail terminals are also located in and around the downtown area.

Supply Factors

The generators outlined above provide a high volume of travel activities which support an extensive supply of existing transient accommodations in the area. In the Boston area -- including the city and surrounding towns in the areas out to Route 128 --

there are approximately 15,000 hotel and motel rooms at present. On an annual basis these provide accommodations for an estimated number of overnight visitors totaling 4,000,000 at the present time.

> In recent years, the number of hotels and motels in the area have been increasing at the rate of six to seven per year. Between 1954 and 1958 -- the most recent available years for which reliable overall data are available -- the number of motels increased from 36 to 71. At the same time, the number of hotels dropped by 12 -- down from 136 to 124. Combining the two types, the total number increased from 172 to 195 during this four-year period. During the same four years, the volume of gross receipts increased by more than $11 million from a figure of approximately $43,000,000 in 1954 to approximately $54,600,000 in 1958, four years later.

In the City of Boston, there are an estimated 11,000 hotel and motel rooms at present. The greatest portion of these are concentrated in a limited group of close-in hotels containing approximately 6,500 units. Of these, only 50 percent can be considered to provide first-quality units -- according to a recent survey -- considering such criteria as fully air-conditioned rooms, private bath for all rooms, and convenient parking available in adequate supply.

Despite inadequate supply, the "performance" in occupancy terms of the close-in facilities has been outstanding in contrast to typical performances in other cities. This is especially true recently, where occupancy rates in many older hotels are reflecting a surge in the construction of new transient facilities.

> Recent data on occupancy levels in a substantial sample of Boston hotels indicates that area occupancy rates are running in the 73 to 77 percent range. This is in line with experience during recent years for the local area and maintains

Boston's relative standing among U.S. cities. Boston has traditionally been one of the top performers in hotel occupancy levels ranking with Washington and Chicago and just below Los Angeles, San Francisco and New York. There are some indications that occupancy levels in the local area are on the upswing, perhaps already reflecting the demand factors as discussed above.

Although downtown demand at present is directly measured by supply and utilization of existing downtown accommodations, the demand potential is actually greater. Due to gaps in supply of convenient, first-quality, modern facilities in the downtown, units in somewhat more outlying locations have been accounting for part of the demand which might otherwise have sought downtown rooms. This tendency to seek downtown accommodations would become even more pronounced with completion of the radial freeway system mentioned previously. The completion of new downtown facilities would recover at least a portion of the demand presently being "lost" to more outlying facilities.

Future Outlook

Based on recent supply trends and the underlying demand factors outlined above, a metropolitan market absorption of approximately 350 units per year is indicated. This projection is conservative in comparison with recent completion rates which have been effectively averaging an estimated 400 units per year. The City of Boston and specifically the close-in sections, we believe can successfully absorb approximately the same proportion of new units as it now has in existing units -- some 70 percent. On this basis, the market potential for Boston transient accommodations during the years up to 1975 would total in the 3,500-3,700 unit range.

This market potential represents only a one-third expansion of the existing total Boston inventory -- from its present level estimated at 11,000 units to approximately 14,500 -- if it is conservatively assumed that none of the new units would serve to replace existing obsolete facilities or units which might be lost by demolition or conversion to other uses. The 3,000-unit core area quality inventory would be approximately doubled. Transient inventories in many U.S. metropolitan areas have recently expanded far more rapidly than is projected here for Boston. Accompanying these expansions however, have been highly competitive market conditions -- a situation not anticipated for Boston within the limits of the above figures.

Projected Additions. A substantial number of additional downtown or close-in facilities have already been programmed, are now underway, and in some cases have recently been completed. Including a total of 3,000 units in six projects and categories, these can be listed as follows:

Projects	Number of Units
1. Prudential Center Hotel America	1,000
2. Government Center Motor Inn	400
3. West End Motor Inn	300
4. Cambridge Charter House	400
5. Waterfront Project	400
6. Miscellaneous	500
Total	3,000

Downtown Potential. The issues involved in evaluating the specific potential for downtown transient accommodations are complex. Involved not only are questions of market and marketability -- including the overall level of area demand as well as capacity to compete effectively for available markets -- but also the desirability of providing a site for additional units for the values that these facilities would bring to the downtown.

> We definitely believe that a minimum of approximately 500 units over and above the present inventory and in addition to those programmed or already underway should be provided in the downtown area. At the upper end of a possible range, as many as 750 additional units might be effectively provided in the downtown. These units would be desirable for the downtown in terms of the activity they would bring into the area and for the necessary services they would provide to nearby offices, retail facilities, restaurants, shows and similar operations. In addition these units, properly located, well-designed and merchandised, should be readily supported at high rates of occupancy by the markets available in the downtown and metropolitan area during the coming years.

Specific market support for the new downtown units would be in expanding tourist markets, focusing to an increasing extent on the downtown area based on programmed activities for the downtown; new transportation facilities also focusing on the downtown; increasing convention and business traveler markets highly concentrated in the downtown based on the new Convention and Exhibition Hall and new office space to be constructed in the downtown during the next period of years.

Development Guidelines. The projected 500-750 units could be best accommodated in one or two new establishments located in or near the central business area. Specifically, a possible motor hotel tower, developed as an integral part of a new retail-office complex perhaps located near the intersection of Summer and Washington should be considered. Other potentially suitable sites would be in the area along Boylston Street near Charles and Tremont; a possible site in the vicinity of the proposed "Old Boston Center" on Tremont near the Park Street Church and Parker House; as well as a site near the interchange of the Central artery and Mass Turnpike. Preliminary indications of desirable staging for the first unit would be three to four years hence in 1966-67 with the second in the early Seventies.

The new units should be designed as deluxe facilities, although oriented in the main to the popular-priced market. There is room however, for a possible luxury facility in the area complementing the successful pattern already established for many years in the Ritz Carlton on Arlington Street. All of these facilities however, should incorporate the latest ideas and best thinking in downtown motel and hotel design. They should be equal to the best of present hotels and motels in quality, style, comfort and convenience.

Ample free or minimum-charge parking on the site should be provided. A multi-storied layout should be serviced by elevators located to minimize walking distance. A full variety of guest conveniences and attractions should be offered. Included for example would be optional bellhop service, laundry and cleaning service and a swimming pool -- once an optional item, but now so widely accepted that to omit it would be to invite premature obsolescence.

Other facilities useful to hotel patrons but also attractive to the general downtown market should definitely be provided. A top-quality restaurant would be an essential. The locations suggested above, the overall atmosphere of the hotel and the availability of convenient on-site parking could easily make the restaurant included here among the most popular in town. Multi-purpose areas for small gatherings, sales meetings, small conventions as well as for displays and private banquet groups would be another essential feature. Beauty and barber shops, newstand, gift shops, coffee shop and cocktail lounge would also be important.

DOWNTOWN BOSTON

Market Studies for Urban Renewal

Section III. Support Factors

DOWNTOWN BOSTON

Market Studies for Urban Renewal

Section III. Support Factors

The projections set forth in the preceding sections represent the key opportunities for downtown expansion and rebuilding during the coming years up to 1975. The figures involved are substantial, especially in comparison with the level of action at the core during the same number of years just past. They are in line however, with the support for new development which the region's economic and population gains have and will continue to provide. These gains have generated continuing new development of all types in various parts of the region in recent years -- development in which the downtown has not shared.

> The downtown projections "claim" a share of expected new development in the upcoming period -- a share which recognizes past trends as well as the fundamental forces working to shape today's metropolitan areas. This share is modest and draws only on those functions appropriate to the long-term role of the downtown.

Current development activities and market-place pressure from builders, as well as users, are already indicating the scale of new opportunities downtown. These opportunities can be fully realized only as part of a total program which eliminates physical and economic impediments to past growth and coordinates new and old elements in the downtown into an attractive and imaginative plan.

Although across-the-boards support from public and private agencies is necessary for optimum downtown growth, as mentioned previously, two factors -- local real estate taxes and public transit -- should be specifically analyzed here. Further discussion on these factors follows below.

Real Estate Taxes

One of the gravest blocks to new downtown development in recent years was the city tax on real estate. Despite recent cuts, the effective tax rate on downtown property had been estimated at 10 percent ad valorem -- one of the top rates in the nation. In terms of cash return the effect of this rate was to make new rental property in the downtown uneconomic, reducing yield on equity in sample cases analyzed to less than one percent.

In late 1961 a legal remedy was developed and it became possible to modify tax rates by formal agreement between the city and owners. Commonly known as the Chapter 121A program, the law now provides that development projects can be undertaken in eligible areas with certain tax advantages by an Urban Redevelopment Corporation, Insurance Company or Savings Bank subject to a six percent limitation on dividends. The tax advantages run for a period of 40 years with provisions for the following annual schedule of payments: 1) a basic excise of 5 percent of gross income plus 2) $10.00 per 1,000 of property valuation; and 3) an added amount as agreed between City and the Corporation. The general pattern under the 121A formula has been for tax payments to average 20 percent of gross revenue. Under any circumstances the minimum amount payable would be based on the current rate against the average of the assessed value for the

three years prior to acquisition or; the current assessed value, whichever is the lesser.

An example developed by BRA in its administration of the program, best serves to explain the operation of the formula. The illustration assumes the following items:

Number of units:	100
Gross income per year:	$120,000
Current valuation of units:	$1,000,000
Current tax rate:	$100 per $1,000 valuation

Source of land: Boston Redevelopment Authority
Average assessments for three years prior to taking: $250,000
Average abatements for three years prior to taking: $ 50,000
Contract with Mayor of City:
For a total payment of 20% of gross income.

The tax is computed as follows:

5% of gross income	$ 6,000
$10 per $1,000 valuation	$10,000
	$16,000
Excise to bring total to 20% of gross of $120,000 as per contract	$ 8,000
	$24,000

The minimum tax requirement is not involved, since this $24,000 tax figure is more than the lesser of

1) $1,000,000 (current valuation) times $100 per $1,000 tax rate or $100,000; and

2) $200,000 (prior assessments less abatements) times $100 per $1,000 tax rate or $20,000.

Although the effective rate of taxation in the sample project is 2.4 percent, the general run of projects has produced effective rates in the 3-4 percent range, we understand. Although the "3-4 percent effective" and "20 percent of gross" figures keep the Boston rates high among U.S. cities and local area jurisdictions, these new rates are sufficiently competitive to attract investment capital in response to available market opportunities. Previously no new real estate investment was worthwhile, markets notwithstanding.

Actual percentages of local realty tax computed against gross income, as reported in the 1961 office building survey by the National Association of Building Owners and Managers, show Boston's position among key cities. The figures for comparative cities are based on a varied-age group of buildings. If only newer buildings were considered, the spread between Boston at 20 percent and the other cities would probably narrow. The figures are as follows:

City	Realty Tax as Percent of Gross Income
Providence	21.0%
BOSTON	20.0%
New York	20.0%
Montreal	19.3%
Chicago	16.4%
Pittsburgh	16.4%
Los Angeles	13.8%
Philadelphia	13.0%
Baltimore	12.2%
St. Louis	11.2%
Washington, D.C.	9.0%

In the local area, the City of Boston with effective rates in the 3-4 percent range, is competitive with most close-in jurisdictions, although generally one to two

points higher than the outlying communities, according to figures developed by Urban Land Institute, in its recent study of land use and local tax factors. A listing of selected area jurisdictions and their effective tax rates is as follows.

City or Town and County		Effective Property Tax Rate
Chelsea		6.81%
Revere		3.68%
	Suffolk County	6.35%
Beverly		2.58%
Lynn		2.69%
Peabody		2.02%
Salem		2.81%
	Essex County (Pt)	2.46%
Belmont		1.85%
Cambridge		3.77%
Everett		1.78%
Framingham		2.80%
Malden		4.15%
Waltham		2.38%
	Middlesex County (Pt)	2.87%
Brookline		2.92%
Dedham		2.14%
Quincy		2.91%
Wellesley		1.99%
	Norfolk County (Pt)	2.55%
Duxbury		1.72%
Hull		3.74%
	Plymouth County (Pt)	2.97%

Transit Programs

Looking ahead, potentially the most serious limiting factor in downtown growth is the ability of the transportation system to move people in and out. Involved here is not

only the theoretical capacity of streets, highways and transit including bus and subway, but the degree to which these facilities are utilized by riders. The accessibility of the downtown, the travel time from various points in the region, the quality and availability of transportation have a direct impact on downtown retail sales and services and office activities. The key issue however, goes directly to the projected increments in downtown office workers, whose movements must be accommodated at the critical peak hour periods.

> Specifically, implications of capacity and utilization of the transportation system must be evaluated in terms of the new downtown employment and possible limitations identified. To the degree that these limits cannot be expanded, then to that degree the downtown potential could not be realized.

At the present time there are a total of approximately 620,000 trips per day to the regional core, according to BRA estimates. About 215,000 of these -- slightly more than one-third -- are on transit. The remaining 405,000 are by auto and truck.

By 1975, total trips are expected to increase approximately 15 percent, reaching 710,000 per day. At the same time, presently projected new highways plus existing facilities improved by various devices together with reasonable extensions of terminal parking facilities downtown could, the BRA estimates, develop about 15 percent in new capacity to augment the present volume of auto movements. Taking the expanded auto capacity of 465,000 trips per day as the practical ceiling for autos, the key question is what happens in transit.

The balancing transit load in a 1975 total of 710,000 trips with 465,000 in autos, would be 245,000. This figure would roughly maintain the present 1-to-2 modal split in favor of the auto, but would call for nearly a 15-percent gain in transit usage -- directly contrary to recent trends. This pattern of expanded transit usage and two possible alternates are discussed below in terms of their effects on the downtown work force and new development prospects.

The transit alternatives are as follows:

1. Declining Patronage. The average rate of rider decrease in recent years has been approximately four percent. Between 1950 and 1962, for example, the level of patronage dropped from 300,000 to the 215,000 figure already mentioned. Some of this decline has been in the peak hours, although the greatest portion is in off-peaks. By extrapolating past declines, BRA estimates patronage at 130,000 per day in 1975 -- a total drop of 85,000 riders. Approximately 40,000 of the total would be at peak hours and the remaining 45,000 during off-peaks.

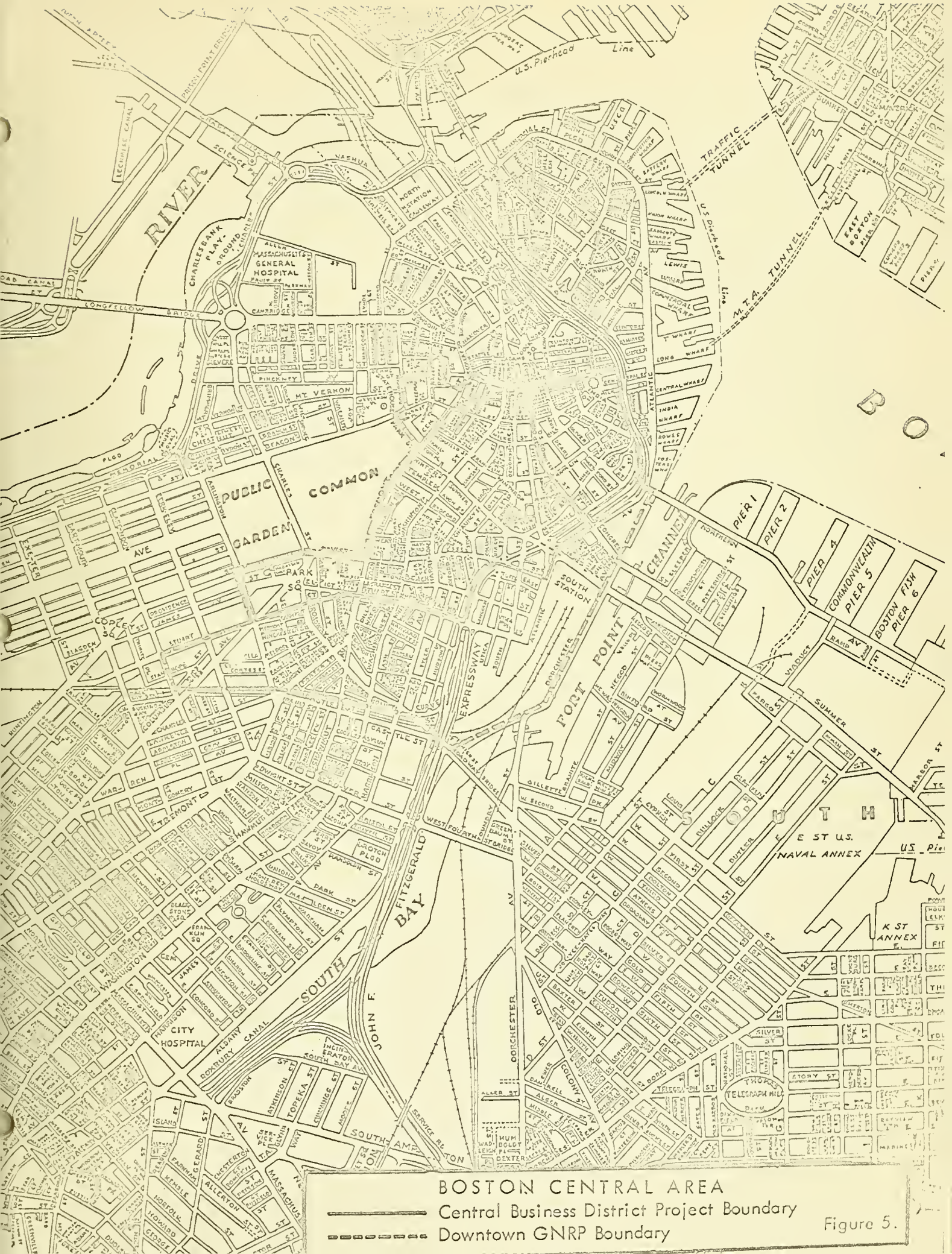
   Should this trend actually develop and the 465,000 projected ceiling on auto trips remain fixed, a decline -- rather than an expansion -- of more than 10,000 in the downtown work force could be expected by 1975. This would be an annual rate of decline almost half as fast as the 1947-57 decade.

2. Stable Patronage. If current rider levels remainded stationary to 1975 at peak hours and only modest off-peak drops occurred, a net expansion of roughly 20,000 in the downtown work force would be possible. This would represent about 80 percent of the potential for 1975 established earlier in this report. Actually, growth at the same pace as that projected could occur initially but transit limitations would begin to "dampen" growth in the early Seventies, about a decade from now.

3. Expanding Patronage. If the "balancing" level of usage -- 245,000 per day -- were achieved in the transit system, the full potential for downtown job gains could be realized. The 245,000 figure in fact appears to provide a greater volume than might be generated by the projected 25,000 net new jobs, if the full capacity of the street network for 465,000 trips is utilized. This additional volume would, of course, stand as a reserve for utilization beyond 1975.

> It should be emphasized that the projected 245,000 transit trips per day would still leave substantial available capacity to support additional future growth in the downtown. Although theoretical, the total capacity of the transit system would be in excess of one million trips per day.

The implications of transit's role in downtown development are clear. Failure to conceive and carry through a program of transit improvements sufficient to reverse present declining trends would leave only two alternatives -- to face the potential of what would be at best a static downtown; or drastically expand the projected highway and terminal parking system in the downtown -- a program many planners contend would be even more disastrous for the downtown.



BOSTON CENTRAL AREA

Central Business District Project Boundary

Downtown GNRP Boundary

Figure 5.

APPENDIX TABLES

Table A-1. POPULATION TRENDS BY CITIES AND TOWNS, METROPOLITAN BOSTON, 1950-60

	Number of Persons		Change, 1950-60	
	1950	1960	Number	Percent
A. Metropolitan Area:				
City of Boston	801,444	697,197	-104,247	-13.0%
Rest of Area	1,609,128	1,892,104	282,976	17.6%
Total	2,410,572	2,589,301	178,729	7.4%
B. Cities and Towns:				
Suffolk County				
Boston City	801,444	697,197	-104,247	-13.0%
Chelsea City	38,912	33,749	- 5,163	-13.3%
Revere City	36,763	40,080	3,317	9.0%
Winthrop Town	19,496	20,303	807	4.1%
Subtotal	(896,615)	(791,329)	(-105,286)	(-11.7%)
Middlesex County (Pt.)				
Cambridge	120,740	107,716	- 13,024	-10.8%
Everett	46,982	43,5440	- 2,438	- 5.3%
Maldon	59,804	57,676	- 2,128	- 3.6%
Medford	66,113	64,971	- 1,142	- 1.7%
Melrose	26,988	29,619	2,631	9.7%
Newton	81,994	92,384	10,390	12.7%
Somerville	102,351	94,697	- 7,654	- 7.5%
Waltham	47,187	55,413	8,226	17.4%
Woburn	20,492	31,214	10,722	52.3%
Arlington	44,353	29,953	5,600	12.6%
Ashland	3,500	7,779	4,279	122.3%
Bedford	5,234	10,969	5,735	109.6%
Belmont	27,381	28,715	1,334	4.9%
Burlington	3,250	12,852	9,602	295.4%
Concord	8,623	12,517	3,894	45.2%
Framingham	28,086	44,526	16,440	58.5%
Lexington	17,335	27,691	10,356	59.7%
Lincoln	2,427	5,613	3,186	131.3%
Natick	19,838	28,831	8,993	45.3%
North Reading Town	4,402	8,331	3,929	89.3%
Reading Town	14,006	19,259	5,253	37.5%
Stoneham	13,229	17,821	4,592	34.7%
Sudbury	2,596	7,447	4,851	186.9%
Wakefield	19,633	24,295	4,662	23.7%
Watertown	37,329	39,092	1,763	4.7%

Table A-1 (Cont'd)

	Number of Persons		Change, 1950-60	
	1950	1960	Number	Percent
Middlesex County (Cont'd)				
Weyland	4,407	10,444	6,037	137.0%
Weston	5,026	8,261	3,235	64.4%
Wilmington	7,039	12,475	5,436	77.2%
Winchester	15,509	19,376	3,867	24.9%
Subtotal	(973,481)	(854,854)	(118,627)	(13.9%)
Essex County (Pt)				
Beverly	28,884	36,108	7,224	25.0%
Lynn	99,738	94,478	-5,260	- 5.3%
Peabody	22,645	32,202	9,557	42.2%
Salem	21,880	39,211	-2,669	- 6.4%
Danvers	15,720	21,926	6,206	39.5%
Hamilton	2,764	5,488	2,724	98.6%
Lynnfield	3,927	8,398	4,471	113.9%
Manchester	2,868	3,932	1,064	37.1%
Marblehead	13,765	18,521	4,756	34.6%
Middleton	2,915	3,718	802	27.5%
Nahant	2,679	3,960	1,281	47.8%
Saugus	17,162	20,666	3,504	20.4%
Swampscott	11,580	13,294	1,714	14.8%
Topsfield	1,412	3,351	1,939	137.3%
Wenham	1,644	2,798	1,154	70.2%
Subtotal	(269,584)	(308,051)	(38,467)	(14.3%)
Norfolk County (Pt)				
Quincy	83,835	87,409	3,574	4.3%
Braintree	23,161	31,069	7,908	34.1%
Brookline	57,589	54,044	-3,545	- 6.2%
Canton	7,465	12,771	5,306	71.1%
Cohasset	3,731	5,840	2,109	56.5%
Dedham	18,487	23,869	5,382	29.1%
Dover	1,722	2,846	1,124	65.3%
Holbrook	4,004	10,104	6,100	152.3%
Medfield	4,549	6,021	1,472	32.4%
Milton	22,395	26,375	3,980	17.8%
Needham	16,313	25,793	9,480	58.1%
Norfolk	2,704	3,471	767	28.4%
Norwood	16,636	24,898	8,262	49.7%
Randolph	9,982	18,900	8,918	89.3%
Sharon	4,847	10,070	5,223	107.8%
Walpole	9,109	14,068	4,959	54.4%

Table A-1 (Cont'd)

	Number of Persons		Change, 1950-60	
	1950	1960	Number	Percent
Norfolk County (Cont'd)				
Wellesley	20,549	26,071	5,522	26.9%
Westwood	5,837	10,354	4,517	77.4%
Weymouth	32,690	48,177	15,487	47.4%
Subtotal	(345,605)	(442,150)	(96,545)	(27.9%)
Plymouth County (Pt)				
Duxbury	3,167	4,727	1,560	49.3%
Hanover	3,389	5,923	2,534	74.8%
Hingham	10,665	15,378	4,713	44.2%
Hull	3,379	7,055	3,676	108.8%
Marshfield	3,267	6,748	3,481	106.6%
Norwell	2,515	5,207	2,692	107.0%
Pembroke	2,579	4,919	2,340	90.7%
Rockland	8,960	13,119	4,159	46.4%
Scituate	5,993	11,214	5,221	87.1%
Subtotal	(43,914)	(74,290)	(30,376)	(69.2%)
METROPOLITAN TOTAL	2,410,572	2,589,301	178,729	7.4%

Table A-2. PROJECTED POPULATION BY CITIES AND TOWNS, METROPOLITAN BOSTON, 1960-70.

	Number of Persons		Change, 1960-70	
	1960	1970 1/	Number	Percent
A. Metropolitan Area:				
City of Boston	697,197	630,000	-67,197	- 9.6%
Rest of Area	1,892,104	2,143,600	251,496	13.3%
Total	2,589,301	2,773,600	184,299	7.1%
B. Cities and Towns:				
Suffolk County				
Boston City	697,197	630,000	-67,197	- 9.6%
Chelsea City	33,749	28,000	- 5,749	-17.0%
Revere City	40,080	41,000	920	2.3%
Winthrop Town	20,303	21,000	697	3.4%
Subtotal	(791,329)	(720,000)	(-71,329)	-(9.0%)
Middlesex County (Pt)				
Cambridge	107,716	100,000	- 7,716	- 7.2%
Everett	43,544	41,000	- 2,544	- 5.8%
Malden	57,676	55,000	- 2,676	- 4.6%
Medford	64,971	62,000	- 2,971	- 4.6%
Melrose	29,619	31,000	1,381	4.7%
Newton	92,384	95,000	2,616	2.8%
Somerville	94,697	88,000	- 6,697	- 7.1%
Waltham	55,413	59,000	3,587	6.5%
Woburn	31,214	40,000	8,786	28.1%
Arlington	49,953	54,000	4,047	8.1%
Ashland	7,779	13,500	5,721	73.5%
Bedford	10,969	18,000	7,031	64.1%
Belmont	28,715	30,000	1,285	4.5%
Burlington	12,852	22,000	9,148	71.2%
Concord	12,517	16,000	3,483	27.8%
Framingham	44,526	62,000	17,474	39.2%
Lexington	27,691	38,000	10,309	37.2%
Lincoln	5,613	8,000	2,387	42.5%
Natick	28,831	36,000	7,169	24.9%
North Reading Town	8,331	13,000	4,669	56.0%
Reading Town	19,259	25,000	5,741	29.8%
Stoneham	17,821	20,000	2,179	12.2%
Sudbury	7,447	12,500	5,053	67.9%
Wakefield	24,295	27,500	3,205	13.2%
Watertown	39,092	40,000	908	2.3%

Table A-2 (Cont'd)

	Number of Persons		Change, 1960-70	
	1960	1970 1/	Number	Percent
Middlesex County (Cont'd)				
Weyland	10,444	17,000	6,556	6.3%
Weston	8,261	10,500	2,239	27.1%
Wilmington	12,475	20,000	7,525	60.3%
Winchester	19,376	23,500	4,124	21.3%
Subtotal	(973,481)	(1,077,500)	(104,019)	(10.7%)
Essex County (Pt)				
Beverly	36,108	43,000	6,892	19.1%
Lynn	94,478	90,000	-4,478	- 4.7%
Peabody	32,202	38,000	5,798	18.0%
Salem	39,211	36,500	-2,711	- 6.9%
Danvers	21,926	28,000	6,074	27.7%
Hamilton	5,488	8,500	3,012	54.9%
Lynnfield	8,398	15,000	6,602	78.6%
Manchester	3,932	5,500	1,568	39.9%
Marblehead	18,521	22,500	3,979	21.5%
Middleton	3,718	4,700	982	26.4%
Nahant	3,960	4,500	540	13.6%
Saugus	20,666	24,000	3,334	16.1%
Swampscott	13,294	15,000	1,706	12.8%
Topsfield	3,351	6,000	2,649	79.1%
Wenham	2,798	4,000	1,202	43.0%
Subtotal	(308,051)	(345,200)	(37,149)	(12.1%)
Norfolk County (Pt)				
Quincy	87,409	90,000	2,591	29.6%
Braintree	31,069	40,000	8,931	28.7%
Brookline	54,044	51,000	- 3,044	-5.6%
Canton	12,771	18,000	5,229	40.9%
Cohasset	5,840	8,000	2,160	37.0%
Dedham	23,869	26,000	2,131	8.9%
Dover	2,846	4,300	1,454	51.1%
Holbrook	10,104	15,000	4,896	48.5%
Medfield	6,021	8,000	1,979	32.9%
Milton	26,375	30,000	3,625	13.7%
Needham	25,793	32,000	6,207	24.1%
Norfolk	3,471	4,500	1,029	29.7%
Norwood	24,898	33,000	8,102	32.5%
Randolph	18,900	25,500	6,600	34.9%
Sharon	10,070	17,500	7,430	73.8%
Walpole	14,068	20,500	6,432	45.7%

Table A-2 (Cont'd)

	Number of Persons			Change, 1960-70	
	1960	1970 1/		Number	Percent
Norfolk County (Cont'd)					
Wellesley	26,071	28,000		1,929	7.4%
Westwood	10,354	15,000		4,646	44.9%
Weymouth	48,177	55,000		6,823	14.2%
Subtotal	(442,150)	(521,300)		(79,150)	(17.9%)
Plymouth County (Pt)					
Duxbury	4,727	7,000		2,273	48.1%
Hanover	5,923	8,500		2,577	43.5%
Hingham	15,378	21,000		5,622	36.6%
Hull	7,055	8,500		1,445	20.5%
Marshfield	6,748	10,600		3,852	57.1%
Norwell	5,207	9,500		4,293	82.4%
Pembroke	4,919	8,500		3,581	72.8%
Rockland	13,119	18,000		4,881	37.2%
Scituate	11,214	18,000		6,786	60.5%
Subtotal	(74,290)	(109,600)		(35,310)	(47.5%)
METROPOLITAN TOTAL	2,589,301	2,773,600		184,299	7.1%

1/ Projections by GBESC.

Table A-3. POPULATION TRENDS BY WARD, CITY OF BOSTON, 1900-1960

City of Boston 1/	Number of Persons						
	1900	1910	1920	1930	1940	1950	1960
Ward No. 1	22,832	29,676	24,738	61,454	59,663	53,296	45,114
Ward No. 2	22,924	28,812	38,313	31,663	25,587	31,332	20,638
Ward No. 3	14,564	15,339	18,566	66,219	53,211	50,644	29,240
Ward No. 4	13,248	13,294	15,706	31,010	30,834	35,889	28,524
Ward No. 5	12,840	12,811	63,267	30,571	33,811	40,701	36,920
Ward No. 6	30,546	35,758	35,030	34,689	31,127	30,328	28,426
Ward No. 7	14,782	14,913	38,091	32,482	33,206	34,484	27,689
Ward No. 8	28,817	32,430	39,105	31,943	29,774	29,355	20,140
Ward No. 9	24,583	26,427	28,959	30,262	29,342	33,357	19,485
Ward No. 10	22,142	25,320	25,727	29,694	27,056	30,281	26,595
Ward No. 11	19,275	27,444	26,875	29,938	29,959	30,456	25,532
Ward No. 12	23,641	24,294	28,015	36,123	37,626	36,880	30,744
Ward No. 13	22,835	21,561	26,380	29,019	28,605	29,805	30,871
Ward No. 14	21,453	23,584	26,003	55,914	54,291	52,580	47,766
Ward No. 15	19,700	21,216	25,960	27,729	27,726	26,661	24,051
Ward No. 16	20,017	25,633	29,363	31,329	32,891	33,233	30,689
Ward No. 17	25,038	26,426	27,277	30,099	32,373	32,322	30,407
Ward No. 18	22,401	22,735	28,547	41,152	43,251	48,348	54,096
Ward No. 19	27,178	31,714	23,810	27,519	28,403	29,525	29,533
Ward No. 20	32,556	55,720	26,546	31,540	34,599	39,053	41,590
Ward No. 21	23,868	30,511	33,938	29,752	34,635	38,984	36,977
Ward No. 22	25,610	29,975	25,989	30,987	32,846	33,930	32,170
Ward No. 23	23,637	30,668	24,904	-	-	-	-
Ward No. 24	27,126	37,749	23,849	-	-	-	-
Ward No. 25	19,279	26,575	22,082	-	-	-	-
Ward No. 26	-	-	20,020	-	-	-	-
Total Population	560,892	670,585	748,060	781,188	770,816	801,444	697,197

1/ Ward boundaries have changed between decades and areas are not directly comparable.

Table A-4. EMPLOYMENT AND LABOR FORCE TRENDS, METROPOLITAN BOSTON, 1957-62

Industry Group		Number Employed 1957	Number Employed 1962	Change 1957-62 Number	Change 1957-62 Percent
Manufacturing					
Durable Goods:					
SIC 19	Ordn & Accessories	3,390	2,600	- 790	-23.3%
24	Lumber and Wood Products	1,800	2,150	350	19.4%
25	Furniture & Fixtures	4,210	4,030	- 180	- 4.3%
32	Stone, Glass & Clay	2,760	2,850	90	3.3%
33	Primary Metals	3,520	3,780	260	7.4%
34	Fabric. Metal Products	16,720	17,550	830	4.9%
35	Machinery, exc. electrical	23,570	27,960	4,390	18.6%
36	Elec. Mach., Equip & Sup.	66,380	57,180	- 9,200	-13.9%
37	Transportation Equipment	23,580	18,030	- 5,550	-23.5%
38	Prof. Sci. Contr. Instruments	11,830	15,520	3,690	31.2%
	Total Durable Goods	(157,760)	(151,650)	(- 6,110)	(-38.8%)
Non-Durable Goods:					
20	Food & Kindred Products	26,470	26,760	290	11.0%
21	Tobacco Manufact.	260	10	- 250	-96.2%
22	Textile Mill Products	7,690	6,930	- 760	- 9.9%
23	Apparel & Rel. Prod.	26,010	22,780	- 3,230	-12.4%
26	Paper & Allied Products	9,750	11,140	1,390	14.3%
27	Printing and Publishing	23,300	22,250	- 1,050	- 4.5%
28	Chemicals & Allied Products	10,120	9,260	- 860	- 8.5%
29	Petroleum Refining	1,570	1,090	- 480	-30.1%
30	Rubber & Plastics	12,960	17,560	4,600	35.5%
31	Leather & Leather Products	22,310	19,760	- 2,550	-11.4%
39	Misc. Manufacturing	9,360	5,970	- 3,390	-36.2%
	Total Non-Durable Goods	(149,800)	(143,510)	(- 6,290)	(- 4.2%)
	Manufacturing Total	307,560	295,160	-12,400	- 4.0%
Non-Manufacturing					
15-17	Contract Construction	45,440	50,570	5,130	11.3%
40-49	Transp., Comm. & Utilities	78,090	67,290	-10,800	-13.8%
50-59	Wholesale and Retail	233,330	247,800	14,470	6.2%
60-69	Finance, Insurance & Real Est.	69,700	74,190	4,490	6.4%
70-89	Service Exc. Domestic	127,370	161,730	34,360	27.0%

Table A-4 (Cont'd)

	Industry Group	Number Employed 1957	Number Employed 1962	Change 1957-62 Number	Change 1957-62 Percent
91-95	Government				
	Federal	-	(45,360)	-	-
	State & Local	-	(98,790)	-	-
	Total Government	(115,820)	(144,150)	28,330	24.5%
	All Other Non-Manufacturing	1,290	6,750	5,460	42.3%
	Non-Manufacturing Total	671,040	752,480	81,440	12.1%
	Non-Agricultural Wage & Salary Total	978,600	1,047,640	69,040	7.1%
	All Other Non-Agricultural	123,000	120,000	- 3,000	- 2.4%
	Agricultural	6,100	4,000	- 2,100	-34.4%
	Total Employment	1,107,700	1,171,640	63,940	5.8%
	Unemployment	27,900	48,600	20,700	74.2%
	Labor-Management Disputes	1,600	-	-	-
	TOTAL LABOR FORCE	1,137,200	1,220,240	83,040	7.3%

CBD RETAIL TRENDS, 25 LARGEST U.S. METROPOLITAN AREAS, 1948, 1954, 1958

	Metropolitan Area	Percent Change CBD Retail Sales 1948-58	Percent Change CBD Retail Sales 1954-58	Percent CBD of Metro Shoppers Goods Sales 1948	Percent CBD of Metro Shoppers Goods Sales 1954	Percent CBD of Metro Shoppers Goods Sales 1958
1.	New York, N.Y.	+15.7%	+ 8.0%	75.1%	77.0%	77.2%
2.	Los Angeles, Cal.	-19.0%	- 5.3%	1/	30.8%	24.2%
3.	Chicago, Ill.	- 1.2%	- 7.3%	41.[illegible]%	36.8%	33.1%
4.	Philadelphia, Pa.	- 6.1%	+ 2.7%	66.5%	59.0%	57.7%
5.	Detroit, Michigan	-27.4%	-16.6%	56.4%	45.2%	42.0%
6.	San Francisco, Cal.	+11.7%	+10.9%	66.8%	66.4%	64.6%
7.	BOSTON, MASS	- 4.6%	- 3.8%	73.3%	71.5%	65.0%
8.	Pittsburgh, Pa.	- 8.9%	+10.9%	74.8%	65.4%	68.0%
9.	St. Louis, Mo.	-14.5%	- 3.3%	63.3%	53.0%	49.9%
10.	Washington, D.C.	- 6.1%	+ 0.4%	74.5%	69.4%	62.9%
11.	Cleveland, Ohio	+ 0.7%	- 3.3%	67.2%	59.7%	55.6%
12.	Baltimore, Md.	- 9.6%	- 7.9%	1/	48.5%	40.6%
13.	Newark, N.J.	- 0.2%	+ 1.3%	77.0%	75.0%	74.2%
14.	Minneapolis-St.Paul	+23.4%	- 0.6%	1/	76.1%	71.0%
15.	Buffalo, N.Y.	- 2.3%	- 4.5%	57.4%	50.0%	47.7%
16.	Houston, Tex.	+ 3.5%	- 4.0%	69.2%	57.4%	47.6%
17.	Milwaukee, Wisc.	-16.4%	-15.5%	46.7%	43.8%	34.9%
18.	Patterson-Clifton-Passaic	+ 4.9%	+ 4.3%	84.6%	76.0%	82.2%
19.	Seattle, Wash.	+ 9.4%	+ 5.8%	1/	62.7%	55.5%
20.	Dallas, Tex.	- 6.7%	- 4.5%	68.3%	54.2%	42.1%
21.	Cincinnati, Ohio	+ 2.9%	- 4.4%	74.5%	71.5%	62.8%
22.	Kansas City, Mo.	- 8.0%	-10.0%	65.8%	57.1%	46.1%
23.	San Diego, Cal.	+ 0.8%	+ 3.5%	69.0%	46.4%	37.9%
24.	Atlanta, Georgia	+17.2%	+13.2%	1/	69.3%	68.9%
25.	Miami, Florida	+ 2.4%	- 8.4%	63.5%	51.7%	39.7%

1/ Withheld to avoid disclosure

Table A-6. CBD SALES TRENDS IN SHOPPERS GOODS STORES, 25 LARGEST U.S. METROPOLITAN AREAS, 1948, 1954, 1958

	Metropolitan Area	CBD Sales in Shoppers Goods Stores ($000) 1948	Change 1948-54	1954	Change 1954-58	1958
1.	New York, N.Y.	$1,198,906	+$63,788	$1,262,694	+$35,538	$1,298,232
2.	Los Angeles, Cal.	$ 298,917	-$44,885	$ 254,032	-$14,897	$ 239,135
3.	Chicago, Ill	$ 517,107	-$40,048	$ 477,059	-$17,357	$ 459,702
4.	Philadelphia, Pa.	$ 456,025	-$31,982	$ 424,043	-$25,491	$ 398,552
5.	Detroit, Michigan	$ 354,667	-$54,484	$ 300,183	-$50,779	$ 249,404
6.	San Francisco, Cal.	$ 227,776	+$12,016	$ 239,792	+$19,724	$ 259,516
7.	BOSTON, MASS.	$ 300,534	+$ 2,596	$ 303,130	-$23,067	$ 280,063
8.	Pittsburgh, Pa.	$ 268,993	-$46,191	$ 222,802	+$33,552	$ 256,354
9.	St. Louis, Mo.	$ 222,160	-$26,759	$ 195,401	-$11,951	$ 183,450
10.	Washington, D.C.	$ 266,687	-$20,239	$ 246,448	+$ 343	$ 246,791
11.	Cleveland, Ohio	$ 257,471	+$ 1,550	$ 259,021	-$17,023	$ 241,998
12.	Baltimore, Md.	$ 172,682	-$ 9,057	$ 163,625	-$12,562	$ 151,063
13.	Newark, N.J.	$ 181,477	+$ 5,468	$ 186,945	+$ 4,720	$ 191,665
14.	Minneapolis-St. Paul	$ 157,389	+$26,146	$ 183,535	+$ 215	$ 183,750
15.	Buffalo, N.Y.	$ 129,122	-$ 2,956	$ 126,166	-$10,232	$ 115,934
16.	Houston, Texas	$ 146,539	+$15,027	$ 161,566	-$ 7,321	$ 154,241
17.	Milwaukee, Wisc.	$ 130,640	-$ 4,811	$ 125,829	-$14,045	$ 111,784
18.	Patterson-Clifton-Passaic	$ 55,417	-$ 618	$ 54,799	-$ 1,556	$ 53,243
19.	Seattle, Washington	$ 133,645	+$ 6,906	$ 140,551	+$11,045	$ 151,596
20.	Dallas, Texas	$ 129,335	-$ 3,632	$ 125,703	-$ 7,698	$ 118,005
21.	Cincinnati, Ohio	$ 154,427	+$15,599	$ 170,026	-$ 7,015	$ 163,011
22.	Kansas City, Ohio	$ 120,390	+$ 2,227	$ 122,617	-$18,824	$ 107,493
23.	San Diego, Cal.	$ 71,428	-$ 2,641	$ 68,787	+$ 5,706	$ 74,493
24.	Atlanta, Georgia	$ 139,008	+$ 5,461	$ 144,469	+$29,671	$ 174,140
25.	Miami, Florida	$ 69,679	+$16,888	$ 86,567	-$ 6,349	$ 80,218

Table A-7. CBD RETAIL SALES TRENDS, 25 LARGEST U.S. METROPOLITAN AREAS, 1948, 1954 AND 1958

	Metropolitan Area	1960 Population	CBD Retail Sales-All Establishments ($000) 1948	Change 1948-54	1954	Change 1954-58	1958
1.	New York, N.Y.	10,694,633	$2,083,058	+$146,831	$2,229,889	+$179,470	$2,409,359
2.	Los Angeles, Cal.	6,742,696	$ 451,009	-$ 65,114	$ 385,895	-$ 20,550	$ 365,345
3.	Chicago, Ill.	6,220,913	$ 753,508	-$ 46,721	$ 706,787	-$ 8,443	$ 698,344
4.	Philadelphia, Pa.	4,342,897	$ 644,316	-$ 42,606	$ 601,710	+$ 3,689	$ 605,399
5.	Detroit, Michigan	3,762,360	$ 456,005	-$ 58,942	$ 397,063	-$ 66,024	$ 331,039
6.	San Francisco-Oakland	2,783,359	$ 407,597	+$ 2,970	$ 410,567	+$ 44,714	$ 455,281
7.	BOSTON, MASS	2,589,301	$ 422,850	-$ 3,320	$ 419,530	-$ 16,147	$ 403,383
8.	Pittsburgh, Pa.	2,405,435	$ 362,358	-$ 64,797	$ 297,561	+$ 32,562	$ 330,123
9.	St. Louis, Mo.	2,060,103	$ 274,506	-$ 31,712	$ 242,794	-$ 7,982	$ 234,812
10.	Washington, D.C.	2,001,897	$ 421,433	-$ 24,066	$ 397,367	-$ 1,464	$ 395,903
11.	Cleveland, Ohio	1,796,595	$ 357,576	+$ 15,050	$ 372,626	-$ 12,419	$ 360,207
12.	Baltimore, Md.	1,727,023	$ 238,187	-$ 4,344	$ 233,843	-$ 18,491	$ 215,352
13.	Newark, N.J.	1,689,420	$ 270,474	+$ 2,975	$ 273,449	-$ 3,586	$ 269,863
14.	Minneapolis-St.Paul	1,482,030	$ 230,181	+$ 55,617	$ 285,798	-$ 1,831	$ 283,967
15.	Buffalo, N.Y.	1,306,957	$ 201,426	+$ 4,675	$ 206,101	-$ 9,214	$ 196,887
16.	Houston, Texas	1,243,158	$ 344,657	+$ 26,742	$ 371,399	-$ 14,710	$ 356,689
17.	Milwaukee, Wisc.	1,194,290	$ 193,263	-$ 1,975	$ 191,287	-$ 29,741	$ 161,546
18.	Patterson-Clifton-Passaic	1,186,873	$ 81,383	+$ 448	$ 81,831	+$ 3,526	$ 85,357
19.	Seattle, Washington	1,107,213	$ 203,991	+$ 6,930	$ 210,921	+$ 12,188	$ 223,109
20.	Dallas, Texas	1,083,601	$ 169,631	-$ 3,893	$ 165,738	-$ 7,474	$ 158,264
21.	Cincinnati, Ohio	1,071,624	$ 245,553	+$ 18,863	$ 264,416	-$ 11,631	$ 252,785
22.	Kansas City, Mo.	1,039,493	$ 175,594	+$ 3,834	$ 179,428	-$ 17,918	$ 161,510
23.	San Diego, Cal.	1,033,011	$ 119,103	-$ 3,119	$ 115,984	+$ 4,060	$ 120,044
24.	Atlanta, Georgia	1,017,188	$ 254,063	+$ 9,157	$ 263,220	+$ 34,831	$ 298,051
25.	Miami, Florida	935,047	$ 111,656	+$ 13,108	$ 124,764	-$ 10,424	$ 114,340

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